SHOSHO 09/869549

Page 1 11/08/2002

=> FILE REG

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=> FILE HCAPLUS

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FILE COVERS 1907 - 8 Nov 2002 VOL 137 ISS 20 FILE LAST UPDATED: 7 Nov 2002 (20021107/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> D QUE L5 STR / 6 O C=C~C~O~C 1 2 3 4 5

```
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
```

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS

STEREO ATTRIBUTES: NONE STR 2 6 0-\(^Ak\(^G2\)  $C = C \sim C \sim G1$ **@7 8 9** 

VAR G1=N/7VAR G2=OH/N NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

95,613 polymers from the 2 M onomers

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS

STEREO ATTRIBUTES: NONE SCR 2043 95613 SEA FILE=REGISTRY SSS FUL L5 AND L6 AND L8 L10 99 SEA FILE=HCAPLUS ABB=ON L10 AND (ATRP OR ATOM?(W)TRANSFER?(3A) L11 POLYMERI?) 3 SEA FILE=HCAPLUS ABB=ON L11 AND PIGMENT? 62951 SEA FILE=HCAPLUS ABB=ON L10 23848 SEA FILE=HCAPLUS ABB=ON L14(L)(PREP OR IMF OR SPN)/RL L15 1398 SEA FILE=HCAPLUS ABB=ON L14(L)PIGMENT? L16 L17 413 SEA FILE=HCAPLUS ABB=ON L15 AND L16 234 SEA FILE=HCAPLUS ABB=ON L16(L)COMPOSITION? L18 L19 30 SEA FILE=HCAPLUS ABB=ON L17 AND L18 L20 1828 SEA FILE=HCAPLUS ABB=ON L14(L)MOA/RL L21 51 SEA FILE=HCAPLUS ABB=ON L20 AND L17 L22 79 SEA FILE=HCAPLUS ABB=ON L12 OR L19 OR L21 55 SEA FILE=HCAPLUS ABB=ON L22 AND (COMPOSITION? OR COMPNS) L23

## => D L23 ALL 1-55 HITSTR

L23 ANSWER 1 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:792267 HCAPLUS

DN 137:296342

Manufacture of dispersants and pigment compositions containing them with good flowability and dispersion stability

IN Endo, Atsushi

Toyo Ink MFG. Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho, 5 pp. CODEN: JKXXAF

DТ Patent

LA Japanese

ICM C07C229-12

ICS B01F017-42; C09B067-20

CC 42-12 (Coatings, Inks, and Related Products)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 2002302474 A2 20021018 JP 2001-102771 20010402

- The dispersants are manufd. by reaction of H2C:CR1CO2(R2O)nR3 [R1 = H, Me; R2 = C2-4 alkylene; R3 = H, C1-9 alkyl, (un)substituted Ph; n = 2-50] with polyalkylenepolyamines and polyalkyleneimines. Thus, 400 parts polypropylene glycol acrylate (Blemmer AP 400) and 60 parts ethylenediamine at room temp. for 4 h to give a compd., which (2 parts) was mixed with 20 parts copper phthalocyanine and 80 parts a varnish to give a gravure ink showing viscosity 230 cps.
- polyoxyalkylene acrylate alkylenepolyamine addn product manuf; gravure ink dispersant polyoxyalkylene polyalkyleneimine addn product; flowability dispersion stability ink

IT Inks

(gravure; manuf. of dispersants and pigment compns. contg. them)

IT Dispersing agents

(manuf. of dispersants and pigment compns. contg. them)

IT Polyoxyalkylenes, uses

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (manuf. of dispersants and pigment compns. contg. them)

- 107-15-3DP, Ethylenediamine, reaction products with polyoxyalkylene acrylate 111-40-0DP, Diethylenetriamine, reaction products with polyoxyalkylene acrylate 4067-16-7DP, Pentaethylenehexamine, reaction products with polyoxyalkylene acrylate 9002-98-6DP, reaction products with polyoxyalkylene acrylate 50858-51-0DP, Blemmer AP 400, reaction products with polyalkylenepolyamines or polyalkyleneimines RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (dispersant; manuf. of dispersants and pigment compns. contg.
- 26403-58-7DP, Polyethylene glycol acrylate, reaction products with polyoxyalkylene acrylate 32171-39-4DP, Polyethylene glycol methyl ether acrylate, reaction products with polyoxyalkylene acrylate 50974-47-5DP, Polyethylene glycol nonylphenyl ether acrylate, reaction products with polyoxyalkylene acrylate 51247-78-0DP, reaction products with polyoxyalkylene acrylate 469866-92-0DP, Ethyloxirane-methyloxirane copolymer monoacrylate, reaction products with polyoxyalkylene acrylate RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of dispersants and **pigment compns**. contg. them)

IT 26403-58-7DP, Polyethylene glycol acrylate, reaction products with polyoxyalkylene acrylate

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of dispersants and pigment compns. contg. them)

RN 26403-58-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxy-(9CI) (CA INDEX NAME)

$$H_2C = CH - C - CH_2 - CH_2 - OH_2 - OH_2$$

L23 ANSWER 2 OF 55 HCAPLUS COPYRIGHT 2002 ACS

2002:672583 HCAPLUS

DN 137:202762

TΙ Storage-stable coating compositions containing nonaqueous dispersion resins with controlled elec. resistivity during coating

IN Sugimoto, Katsuhiko

PA Nippon Paint Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho, 9 pp. SO

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D201-00

> ICS B05D001-36; B05D007-24; B32B007-02; B32B015-08; B32B027-20; C09D007-12

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_\_\_ -----JP 2002249718 A2 20020906

PΙ JP 2001-48537 20010223 AB The compn., useful for automobile bodies or parts, comprises an org. carboxylic acid ammonium salt and a nonaq. dispersion resin, wherein elec. resistivity of the coating compn. during coating is 0.1-0.5 M.OMEGA.. Thus, a pigment paste [obtained by dispersed 13% (based on coating solids) Al flake in 50 parts styrene-Me methacrylate-4hydroxybutyl acrylate-Et acrylate-Et methacrylate-methacrylic acid-acrylamide copolymer] was mixed with isophthalic acid-adipic acid-trimethylolpropane-neopentyl glycol-2,2-dimethyl-3-hydroxypropyl-2,2dimethyl-3-hydroxypropionate-.epsilon.-caprolactone copolymer 10, Me methacrylate-stearyl methacrylate-2-hydroxyethyl acrylate-styrenemethacrylic acid-Et acrylate graft copolymer 10, U 20N60 (melamine resin) 30 parts and BYK ES 80 1.2% (based on coating solids) to give a coating compn. showing elec. resistivity.24 M.OMEGA. and storage stability +4.0 s.

ST polyester acrylic aminoplast coating elec resistivity; nonaq dispersion acrylic polymer coating storage stability

TΤ Quaternary ammonium compounds, uses

RL: MOA (Modifier or additive use); USES (Uses) (Carboxylic acids; storage-stable coating compns. contg. nonaq. dispersion resins with controlled elec. resistivity during coating for)

ΙT Polyesters, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-aminoplast-; storage-stable coating compns. contg. nonaq. dispersion resins with controlled elec. resistivity during coating for)

Aminoplasts IT

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-polyester-; storage-stable coating compns. contg. nonaq. dispersion resins with controlled elec. resistivity during coating for)

```
IT
      Carboxylic acids, uses
      RL: MOA (Modifier or additive use); USES (Uses)
         (ammonium salts; storage-stable coating compns. contg. nonag.
         dispersion resins with controlled elec. resistivity during coating for)
 IT
      Automobiles
         (bodies; storage-stable coating compns. contg. nonaq.
         dispersion resins with controlled elec. resistivity during coating for)
 IT
      Aminoplasts
      RL: MOA (Modifier or additive use); USES (Uses)
         (crosslinking agents; storage-stable coating compns. contg.
         nonaq. dispersion resins with controlled elec. resistivity during
         coating)
 ΙT
     Automobiles
         (parts; storage-stable coating compns. contg. nonaq.
         dispersion resins with controlled elec. resistivity during coating for)
 IT
      Dispersing agents
         (pigment; storage-stable coating compns. contg. nonaq.
        dispersion resins with controlled elec. resistivity during coating for)
IT
     Coating process
     Crosslinking agents
         (storage-stable coating compns. contg. nonaq. dispersion
        resins with controlled elec. resistivity during coating for)
IΤ
     Polyesters, uses
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP
      (Preparation); USES (Uses)
        (storage-stable coating compns. contg. nonaq. dispersion
        resins with controlled elec. resistivity during coating for)
ΤТ
     Coating materials
        (storage-stable; storage-stable coating compns. contg. nonaq.
        dispersion resins with controlled elec. resistivity during coating)
ΙT
     9003-08-1, U-Van 20N60
     RL: MOA (Modifier or additive use); USES (Uses)
        (crosslinking agents; storage-stable coating compns. contg.
        nonaq. dispersion resins with controlled elec. resistivity during
        coating)
IΤ
     7429-90-5, Aluminum, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (flake; storage-stable coating compns. contg. nonaq.
        dispersion resins with controlled elec. resistivity during coating)
IT
     369639-34-9, Acrylamide-ethyl methacrylate-ethyl
     acrylate-4-hydroxybutyl acrylate-methacrylic acid-methyl
     methacrylate-styrene copolymer
     RL: MOA (Modifier or additive use); USES (Uses)
        (pigment dispersants; storage-stable coating compns
        . contg. nonaq. dispersion resins with controlled elec. resistivity
        during coating)
     128903-34-4P, Adipic acid-.epsilon.-caprolactone-isophthalic
ΙT
     acid-2,2-dimethyl-3-hydroxypropyl-2,2-dimethyl-3-hydroxypropionate-
     neopentyl glycol-trimethylolpropane copolymer 394251-24-2P,
     Ethyl acrylate-2-hydroxyethyl acrylate-methacylic acid-methyl
     methacrylate-stearyl methacrylate-styrene graft copolymer
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     PREP (Preparation); USES (Uses)
        (storage-stable coating compns. contg. nonaq. dispersion
        resins with controlled elec. resistivity during coating)
IT
     22307-72-8, uses
                       122878-52-8, BYK ES 80
     RL: MOA (Modifier or additive use); USES (Uses)
        (storage-stable coating compns. contg. nonaq. dispersion
        resins with controlled elec. resistivity during coating)
TT
     369639-34-9, Acrylamide-ethyl methacrylate-ethyl
```

acrylate-4-hydroxybutyl acrylate-methacrylic acid-methyl
methacrylate-styrene copolymer

RL: MOA (Modifier or additive use); USES (Uses)

(pigment dispersants; storage-stable coating compns

. contg. nonaq. dispersion resins with controlled elec. resistivity during coating)

RN 369639-34-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, ethyl 2-methyl-2-propenoate, ethyl 2-propenoate, 4-hydroxybutyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 2478-10-6 CMF C7 H12 O3

$$_{\text{HO}-\text{ (CH}_2)_4-\text{O}-\text{C}-\text{CH}}^{\text{O}}$$

CM 2

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{Eto-C-CH-----} \text{CH}_2 \end{array}$$

CM 3

CRN 100-42-5 CMF C8 H8

CM 4

CRN 97-63-2 CMF C6 H10 O2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ & || & || \\ \text{Me-} & \text{C--} & \text{C--} & \text{OEt} \end{array}$$

CM 5

CRN 80-62-6

Page 7

CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & o \\ \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{OMe} \end{array}$$

SHOSHO

CM 6

CRN 79-41-4 CMF C4 H6 O2

7 CM

CRN 79-06-1 CMF C3 H5 N O

$$\begin{matrix} \text{O} \\ || \\ \text{H}_2\text{N}-\text{C}-\text{CH} \longrightarrow \text{CH}_2 \end{matrix}$$

394251-24-2P, Ethyl acrylate-2-hydroxyethyl acrylate-methacylic IT acid-methyl methacrylate-stearyl methacrylate-styrene graft copolymer RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)

(storage-stable coating compns. contg. nonaq. dispersion resins with controlled elec. resistivity during coating)

RN 394251-24-2 HCAPLUS

2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, ethyl 2-propenoate, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate and octadecyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME) CN

CM 1

CRN 32360-05-7 CMF C22 H42 O2

$$$^{\rm O}_{\rm CH_2}$$$
  $^{\rm CH_2}_{\rm H}$   $^{\rm H}_{\rm C}$  Me $^{\rm CH_2}$  )  $_{17}$  – O – C – C – Me

CM 2

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array} \\ \text{CH}_2 \\ \end{array}$$

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{EtO-C-CH----} \text{CH}_2 \end{array}$$

CM

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 5

CRN 80-62-6 CMF C5 H8 O2

CM 6

CRN 79-41-4 CMF C4 H6 O2

L23 ANSWER 3 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:608000 HCAPLUS

DN 137:161461

Photosensitive red resin composition containing C.I.Pigment Red ΤI 209 for formation of color image and for manufacture of LCD color filter

Okazaki, Tetsuya; Kobayashi, Yuji; Kimura, Yoichi; Liu, Shun Lin; Sugahara, Seiji; Yamazaki, Koji; Yokochi, Seigo

```
PA
     Hitachi Chemical Co., Ltd., Japan
SO
     Jpn. Kokai Tokkyo Koho, 11 pp.
     CODEN: JKXXAF
DT
     Patent
     Japanese
LA
     ICM G03F007-004
TC
     ICS C08F002-44; C08F002-50; C08F291-00; C08K003-00; C08L101-00;
          G02B005-20; G03F007-033
     74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
     Section cross-reference(s): 35, 38, 41, 73
FAN.CNT 1
                  KIND DATE
     PATENT NO.
                                         APPLICATION NO. DATE
                     ----
     JP 2002229198 A2 20020814 JP 2001-27939 2001020
PΙ
                                                           20010205
AB
     The photosensitive red resin compn. comprises C.I. Pigment Red
     209, a yellow pigment, an orange pigment dispersed in a resin.
                                                                    In addn.,
     the photosensitive red resin compn. comprises a monomer having
     .gtoreq.1 photopolymerizable unsatd. bond and a photopolymn. initiator.
     The formation of a color image and the manuf. of a LCD color filter using
     above photosensitive red resin compn. are also claimed. The use
     of C.I.Pigment Red 209 in the photosensitive red resin compn.
     provided excellent optical transparency in red region.
ST
     photosensitive red resin compn color filter liq crystal display;
     C I Pigment Red 209 photosensitive red resin compn
TΤ
     Liquid crystal displays
     Optical filters
        (photosensitive red resin compn. contg. C.I.Pigment Red 209
        for formation of color image and for manuf. of LCD color filter)
ΙT
     90-93-7
               119-61-9, Benzophenone, uses
     RL: CAT (Catalyst use); USES (Uses)
        (photopolymn. initiator; photosensitive red resin compn.
        contg. C.I. Pigment Red 209 for formation of color image and for manuf.
        of LCD color filter)
     27775-58-2P, Pentaerythritol triacrylate homopolymer
IT
     36446-02-3P, Trimethylolpropane triacrylate homopolymer 57592-66-2P,
     Pentaerythritol tetraacrylate homopolymer
     RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (photosensitive red resin compn. contg. C.I.Pigment
        Red 209 for formation of color image and for manuf. of LCD color
        filter)
     147-14-8, C.I.Pigment Blue 15:3 3573-01-1, C.I.Pigment Red 209
ΙT
     4051-63-2, C.I.Pigment Red 177 14302-13-7, C.I.Pigment Green 36
     30125-47-4, C.I.Pigment Yellow 138 36888-99-0, C.I.Pigment Yellow 139
     84632-65-5, C.I.Pigment Red 254 215247-95-3, C.I.Pigment Violet 23
     RL: TEM (Technical or engineered material use); USES (Uses)
        (photosensitive red resin compn. contg. C.I. Pigment Red 209
        for formation of color image and for manuf. of LCD color filter)
IT
     27775-58-2P, Pentaerythritol triacrylate homopolymer
     RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (photosensitive red resin compn. contg. C.I.Pigment
        Red 209 for formation of color image and for manuf. of LCD color
        filter)
RN
     27775-58-2 HCAPLUS
     2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-
CN
     propanediyl ester, homopolymer (9CI) (CA INDEX NAME)
```

CRN 3524-68-3 CMF C14 H18 O7

L23 ANSWER 4 OF 55 HCAPLUS COPYRIGHT 2002 ACS

ΑN 2002:607586 HCAPLUS

DN 137:177132

Recording method and apparatus using ink composition and its ΤI reactive solution and records formed by them

IN Miyabayashi, Toshiyuki

Seiko Epson Corp., Japan PΑ

SO Jpn. Kokai Tokkyo Koho, 36 pp. CODEN: JKXXAF

DTPatent

T.A Japanese

ICM B41M005-00

ICS B41M005-00; B41J002-01; C09D011-00

74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE JP 2002225414 A2 20020814 JP 2001-20737 20010129

PΤ The records such as characters, images, and designs are printed with the ink compn. and the reactive soln. on a recording material. The method or the app. comprises processes or devices for depositing the reactive soln. on the recording material, recording images by subsequently depositing the ink compn., controlling to record the images, and processing the recording material with a polar solvent. The ink compn. contains a colorant, emulsified resin particles, a water sol. org. solvent, and water. The reactive soln. contains a reacting agent forming agglomerates when contacted with the ink compn., cationic inorg. particles and/or cationic polymer particles, the water sol. org. solvent, and water. The method showed improved image fixability, abrasion resistance, and light stability, and can be printed on various materials such as industrial material, electronic device, food, and cloth.

ST ink jet printing reactive soln; cationic particle reactive soln agglomerate; resin emulsion colorant ink compn

IT Epoxy resins, uses

Polyesters, uses

Polysiloxanes, uses

Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses) (cationic, reactive soln. contg.; ink-jet printing method using ink and reactive soln.)

ΙT Ink-jet printing

(ink-jet printing method using ink and reactive soln.)

SHOSHO

```
IT
     Polyamides, uses
     Polyolefins
     RL: TEM (Technical or engineered material use); USES (Uses)
         (reactive soln. contg.; ink-jet printing method using ink and reactive
IT
     1344-28-1, Aluminasol 520, uses
                                       7631-86-9, Snowtex AK, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
         (colloidal, reactive soln. contg; ink-jet printing method using ink and
        reactive soln.)
     324575-87-3P
ΙT
                     382140-73-0P 446862-67-5P
     RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
         (ink compn., pigment dispersed with; ink-jet
        printing method using ink and reactive soln.)
TΤ
     7439-95-4DP, Magnesium, complex with acrylic copolymer
     75266-11-4DP, Acrylamide-butyl acrylate-glycidyl
     methacrylate-methacrylic acid-styrene copolymer, magnesium complex
     277300-62-6P, Acrylamide-butyl acrylate-methacrylic acid-styrene
     copolymer ammonium salt 324575-80-6P 324576-24-1P
     RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (ink compn.; ink-jet printing method using ink and reactive
        soln.)
TT
     147-14-8, C.I. PigmentBlue 15:3
                                       980-26-7, C.I. Pigment Red 122
     76199-85-4, C.I. Pigment Yellow 185
     RL: TEM (Technical or engineered material use); USES (Uses)
        (ink compn.; ink-jet printing method using ink and reactive
     324576-03-6P, Acrylamide-butyl acrylate-ethylene glycol
TΤ
     dimethacrylate-heptadecafluorodecyl methacrylate-methacrylic acid-styrene
     copolymer ammonium salt
     RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (ink-jet printing method using ink and reactive soln.)
ΙT
     35209-54-2, Acrylic acid-styrene copolymer ammonium salt
     RL: TEM (Technical or engineered material use); USES (Uses)
        (ink-jet printing method using ink and reactive soln.)
IT
     9003-17-2, Polybutadiene
                                9003-53-6, Polystyrene
                                                          9003-55-8,
     Butadiene-styrene copolymer
                                   24937-78-8, Ethylene-vinyl acetate copolymer
     RL: TEM (Technical or engineered material use); USES (Uses)
        (reactive soln. contg.; ink-jet printing method using ink and reactive
        soln.)
IT
     220170-89-8P
     RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (reactive soln. contg; ink-jet printing method using ink and reactive
        soln.)
ΙT
     10377-60-3, Magnesium nitrate
     RL: TEM (Technical or engineered material use); USES (Uses)
        (reactive soln. contg; ink-jet printing method using ink and reactive
        soln.)
IT
     446862-67-5P
     RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (ink compn., pigment dispersed with; ink-jet
        printing method using ink and reactive soln.)
RN
     446862-67-5 HCAPLUS
     2-Propenoic acid, 2-methyl-, butyl ester, polymer with
     2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, phenylmethyl
```

2-methyl-2-propenoate, 2-propenenitrile and .alpha.-sulfo-.omega.-[1-

Page 12

[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) ammonium salt (9CI) (CA INDEX NAME)

CM

CRN 113405-85-9

CMF (C2 H4 O)n C21 H34 O6 S . H3 N

CCI IDS, PMS

$$D1-(CH_2)_8-Me$$

## NH3

CM 2

CRN 15214-89-8 CMF C7 H13 N O4 S

$$\begin{array}{c} \text{O} \\ || \\ \text{NH-C-CH} \end{array}$$
 
$$\begin{array}{c} \text{CH}_2 \\ \text{Me-C-CH}_2 - \text{SO}_3 \text{H} \\ | \\ \text{Me} \end{array}$$

3 CM

CRN 2495-37-6 CMF C11 H12 O2

CRN 107-13-1 CMF C3 H3 N

 $H_2C = CH - C = N$ 

CM 5

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

75266-11-4DP, Acrylamide-butyl acrylate-glycidyl ΙT methacrylate-methacrylic acid-styrene copolymer, magnesium complex 277300-62-6P, Acrylamide-butyl acrylate-methacrylic acid-styrene copolymer ammonium salt 324575-80-6P 324576-24-1P RL: PNU (Preparation, unclassified); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)

(ink compn.; ink-jet printing method using ink and reactive soln.)

75266-11-4 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, CN ethenylbenzene, oxiranylmethyl 2-methyl-2-propenoate and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2 CMF C7 H12 O2

CM 2

CRN 106-91-2 CMF C7 H10 O3

$$\stackrel{O}{ \ \, } \quad \stackrel{O}{ \ \, } \quad \stackrel{CH_2}{ \ \, } \quad \stackrel{CH_2-O-C-C-Me}{ \ \, }$$

CM 3 CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 4

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

5 CM

CRN 79-06-1 CMF C3 H5 N O

RN 277300-62-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene and 2-propenamide, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 50658-98-5

CMF (C8 H8 . C7 H12 O2 . C4 H6 O2 . C3 H5 N O)x

CCI PMS

> 2 CM

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH----} \text{CH}_2 \end{array}$$

3 CM

CRN 100-42-5 CMF C8 H8

H2C CH-Ph

CM 4

CRN 79-41-4 CMF C4 H6 O2

CM 5

CRN 79-06-1 CMF C3 H5 N O

RN 324575-80-6 HCAPLUS

2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 2-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl]ethyl 2-methyl-2-propenoate, CN butyl 2-propenoate, ethenylbenzene, 1,2,2,6,6-pentamethyl-4-piperidinyl 2-methyl-2-propenoate, 2-propenamide and 2-propenoic acid, ammonium salt (CA INDEX NAME) (9CI)

CM 1

CRN 324575-79-3

(C18 H17 N3 O3 . C14 H25 N O2 . C10 H14 O4 . C8 H8 . C7 H12 O2 . C3  $H5\ N\ O$  .  $C3\ H4\ O2)x$ 

CCI PMS

> CM 2

96478-09-0 CRN C18 H17 N3 O3 CMF

CM3 CRN 68548-08-3 CMF C14 H25 N O2

CM

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \longrightarrow \text{CH}_2 \end{array}$$

CM

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 6

CRN 97-90-5 CMF C10 H14 O4

CM7

CRN 79-10-7 CMF C3 H4 O2

CRN 79-06-1 CMF C3 H5 N O

$$\begin{matrix} \text{O} \\ || \\ \text{H}_2\text{N}-\text{C}-\text{CH} = \text{CH}_2 \end{matrix}$$

324576-24-1 HCAPLUS RN

CN 2-Propenoic acid, 2-methyl-, oxydi-2,1-ethanediyl ester, polymer with 1-acetyl-2-oxopropyl 2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 324576-23-0

CMF (C12 H18 O5 . C9 H12 O4 . C8 H8 . C7 H13 N O4 S . C7 H12 O2)  $\mathbf x$ CCI PMS

2 CM

CRN 129955-71-1 CMF C9 H12 O4

CM 3

CRN 15214-89-8 CMF C7 H13 N O4 S

$$\begin{array}{c} \text{O} \\ || \\ \text{NH-C-CH} = \text{CH}_2 \\ || \\ \text{Me-C-CH}_2 - \text{SO}_3\text{H} \\ || \\ \text{Me} \end{array}$$

CM4

2358-84-1 CRN CMF C12 H18 O5

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CRN 141-32-2 CMF C7 H12 O2

CM 6

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

IT 324576-03-6P, Acrylamide-butyl acrylate-ethylene glycol dimethacrylate-heptadecafluorodecyl methacrylate-methacrylic acid-styrene copolymer ammonium salt

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(ink-jet printing method using ink and reactive soln.)

RN 324576-03-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, 1,2-ethanediyl bis(2-methyl-2-propenoate), ethenylbenzene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-methyl-2-propenoate and 2-propenamide, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 324576-02-5

CMF (C14 H9 F17 O2 . C10 H14 O4 . C8 H8 . C7 H12 O2 . C4 H6 O2 . C3 H5 N O)  $\times$ 

CCI PMS

CM 2

CRN 1996-88-9 CMF C14 H9 F17 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{F}_3\text{C}- \text{(CF}_2)_7-\text{CH}_2-\text{CH}_2-\text{O}-\text{C}-\text{C}-\text{Me} \end{array}$$

CRN 141-32-2 CMF C7 H12 O2

$$\overset{\text{O}}{\underset{n-\text{BuO}-}{\parallel}}\text{C--}\text{CH} = \text{CH}_2$$

CM

100-42-5 CRN CMF C8 H8

 $H_2C = CH - Ph$ 

CM 5

CRN 97-90-5 CMF C10 H14 O4

CM 6

CRN 79-41-4 CMF C4 H6 O2

7 CM

CRN 79-06-1 CMF C3 H5 N O

## ΙT 220170-89-8P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)

(reactive soln. contg; ink-jet printing method using ink and reactive soln.)

RN 220170-89-8 HCAPLUS

CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2propenyl)oxy]ethyl]-, chloride, polymer with butyl 2-propenoate and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 46917-07-1 CMF C15 H22 N O2 . C1

C1-

CM

CRN 141-32-2 CMF C7 H12 O2

CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

ANSWER 5 OF 55 HCAPLUS COPYRIGHT 2002 ACS L23

2002:504881 HCAPLUS AN

137:64619 DN

Manufacture of pigment dispersion containing water-based acrylic emulsion dispersants for coating compositions

IN Ramesh, Swaminathan; Lanza, Joann; Harris, Paul

PA Basf Corporation, USA

SO PCT Int. Appl., 40 pp. CODEN: PIXXD2

DTPatent

LA English

ICICM C09D005-00

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Page 21
SHOSHO
         09/869549
                                    11/08/2002
CC
     42-6 (Coatings, Inks, and Related Products)
FAN.CNT 4
     PATENT NO.
                      KIND DATE
                                         APPLICATION NO. DATE
     _____
                      ----
                                          -----
                     A2 20020704 WO 2001-US42956 20011119
PΙ
     WO 2002051948
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
             US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2002132890
                     A1
                            20020919
                                          US 2000-747472 20001222
PRAI US 2000-747472
                      Α
                            20001222
     Title pigment dispersion comprises inorg. pigment and a water-based
     acrylic emulsion dispersant (used as a grind resin to incorporate inorg.
     pigment) comprising the reaction product of: (A) an ethylenically unsatd.
     monomer; (B) a vinylarom. hydrocarbon monomer; (C) a non-functional
     polyalkylene glycol acrylate or methacrylate monomer, (D) a functional
     polyalkylene glycol acrylate or methacrylate monomer having ahydroxyl
     group, and (E) an acid having a first functional acid group reactive with
     said hydroxylgroup, and a second functional acid group capable of
     providing an acid anion group. Thus, an acrylic emulsion dispersant is
     manufd. by polymg. Bu methacrylate, Bu acrylate, styrene, Me ether
     polyethylene glycol methacrylate, and polyethylene glycol methacrylate in
     the presence of ammonium persulfate, and then reacting with polyphosphoric
     acid, and finally neutralizing with dimethylethanolamine. Then, the
     dispersant was mixed with titanium dioxide and other additives in Pr
     propasol and water to give a pigment dispersion with good glossy
     appearance.
ST
     pigment dispersion water acrylic emulsion dispersant coating
IT
     Polyoxyalkylenes, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (acrylic; manuf. of pigment dispersion contg. water-based acrylic
        emulsion dispersants for coating compns.)
ΙT
     Carboxylic acids, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (dicarboxylic; manuf. of pigment dispersion contg. water-based acrylic
        emulsion dispersants for coating compns.)
IT
     Polyphosphoric acids
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM
     (Technical or engineered material use); PREP (Preparation); USES (Uses)
        (esters, with polyacrylates, amine salts; manuf. of pigment dispersion
        contg. water-based acrylic emulsion dispersants for coating
        compns.)
ΙT
     Coating materials
     Pigments, nonbiological
        (manuf. of pigment dispersion contg. water-based acrylic emulsion
        dispersants for coating compns.)
IT
     108-01-0DP, Dimethylethanolamine, salts with polyacrylate phosphates
     439293-81-9DP, esters with polyphosphoric acids,
     dimethylethanolamine salts 439556-15-7DP, Butyl acrylate-butyl
     methacrylate-ethylene oxide-styrene graft copolymer methyl ether, esters
     with polyphosphoric acids, dimethylethanolamine salts
     RL: IMF (Industrial manufacture); MOA (Modifier or additive
```

(Preparation); USES (Uses)

use); TEM (Technical or engineered material use); PREP

(manuf. of pigment dispersion contg. water-based acrylic

emulsion dispersants for coating compns.) 7664-93-9, Sulfuric acid, reactions 7782-99-2, Sulfurous IT 124-68-5 acid, reactions RL: RCT (Reactant); RACT (Reactant or reagent) (manuf. of pigment dispersion contg. water-based acrylic emulsion dispersants for coating compns.) 13463-67-7, Titanium dioxide, uses IT

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(pigment; manuf. of pigment dispersion contg. water-based acrylic emulsion dispersants for coating compns.)

IT 30136-13-1, Propyl Propasol

RL: NUU (Other use, unclassified); USES (Uses) (solvent; manuf. of pigment dispersion contg. water-based acrylic emulsion dispersants for coating compns.)

IT 439293-81-9DP, esters with polyphosphoric acids, dimethylethanolamine salts

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of pigment dispersion contg. water-based acrylic emulsion dispersants for coating compns.)

439293-81-9 HCAPLUS RN

2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate, CN ethenylbenzene, .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.hydroxypoly(oxy-1,2-ethanediyl) and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0 (C2 H4 O)n C5 H8 O2 CMF CCI PMS

$$\begin{array}{c|c} H_2C & O \\ \parallel & \parallel & \\ Me-C-C & \hline \end{array}$$
 O-CH<sub>2</sub>-CH<sub>2</sub>-OM6

CM 2

CRN 25736-86-1 CMF (C2 H4 O)n C4 H6 O2 CCI

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-C-C} & \text{O-CH}_2\text{-CH}_2 \\ \hline \end{array} \begin{array}{c} \text{OH} \\ \text{OH} \\ \end{array}$$

CM 3

CRN 141-32-2 CMF C7 H12 O2

CRN 100-42-5 CMF C8 H8

H2C CH-Ph

CM 5

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

L23 ANSWER 6 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:466724 HCAPLUS

DN 137:48627

ΤI Water-borne coating composition and forming smooth multilayer coating film

Harakawa, Tsuyoshi; Murayama, Masaru; Seo, Shinnji; Tsuji, Naohiro IN

PA Japan

U.S. Pat. Appl. Publ., 19 pp. SO CODEN: USXXCO

DΤ Patent

LA English

IC ICM B05D003-02

ICS B05D001-36; C08K003-00

NCL 524507000

CC 42-7 (Coatings, Inks, and Related Products)

FAN.CNT 1

PATENT NO. KIND		APPLICATION NO.	DATE
PI US 2002077410 A1 GB 2369365 A1 PRAI JP 2000-265208 A JP 2000-265209 A	20020620 20020529 20000901 20000901	US 2001-944199 GB 2001-21020	20010904 20010830

A waterborne base compn. comprises an emulsion resin obtained by AΒ emulsion polymn. of an .alpha.,.beta.-ethylenically unsatd. monomer mixt. or a water-sol. polyester and 0.01-20% urethane compd. additive contributing to stable viscosity and film smoothness. Thus, an aq. dispersion type acrylic resin 250.0, second water-sol. acrylic resin 32.3, luster color pigment paste C-1 66.3, Cymel 204 25.3, and Adekanol SDX-1014 (urethane, active ingredient content 30%) 1.7 parts were mixed and the mixt. was adjusted to pH 8 by adding a 10% aq. soln. of

```
dimethylaminoethanol to give a waterborne base coating compn.
      The application viscosity of this waterborne base coating (a single
      cylindrical rotational viscometer at 6 rpm and 25.degree.) was 1100 mPa-s.
 ST
      pigmented base coat water thinned smoothness
 IT
      Coconut oil
      RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
      engineered material use); PREP (Preparation); USES (Uses)
         (alkyd resin derivs.; water-borne coating compn. contg.
         urethane compd. forming smooth multilayer coating film with good
         flip-flop property)
 IT
      Urethanes
      RL: MOA (Modifier or additive use); USES (Uses)
         (water-borne coating compn. contg. urethane compd. forming
         smooth multilayer coating film with good flip-flop property)
 IT
      Aminoplasts
      RL: TEM (Technical or engineered material use); USES (Uses)
         (water-borne coating compn. contg. urethane compd. forming
         smooth multilayer coating film with good flip-flop property)
      7429-90-5, Alpaste MH 8801, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
         (flakes; water-borne coating compn. contg. urethane compd.
         forming smooth multilayer coating film with good flip-flop property)
     172929-24-7, Orga P-2
 ΙT
     RL: TEM (Technical or engineered material use); USES (Uses)
         (intermediate coating; water-borne coating compn. contg.
        urethane compd. forming smooth multilayer coating film with good
        flip-flop property)
IT
     437992-86-4P
     RL: IMF (Industrial manufacture); PRP (Properties); TEM
     (Technical or engineered material use); PREP (Preparation); USES
     (Uses)
         (pigment dispersant; water-borne coating compn.
        contg. urethane compd. forming smooth multilayer coating film with good
        flip-flop property)
ΙT
     220581-55-5, Orga TO-563 Clear
     RL: TEM (Technical or engineered material use); USES (Uses)
        (top coat; water-borne coating compn. contg. urethane compd.
        forming smooth multilayer coating film with good flip-flop property)
     77-99-6DP, Trimethylolpropane, polymer with phthalic anhydride, adipic
IT
     acid, neopentyl glycol, dimethylolpropionic acid, and coconut oil
     85-44-9DP, Phthalic anhydride, polymer with adipic acid,
     trimethylolpropane, neopentyl glycol, dimethylolpropionic acid, and
                   121-91-5P, Isophthalic acid, uses 124-04-9DP, Adipic acid,
     coconut oil
     polymer with phthalic anhydride, trimethylolpropane, neopentyl glycol,
     dimethylolpropionic acid, and coconut oil 126-30-7DP, Neopentyl glycol,
     polymer with adipic acid, phthalic anhydride, trimethylolpropane,
     dimethylolpropionic acid, and coconut oil 4767-03-7DP,
     Dimethylolpropionic acid, polymer with adipic acid, phthalic anhydride,
     trimethylolpropane, neopentyl glycol, and coconut oil 161487-11-2P
     437992-82-0P 437992-84-2P
                                437992-85-3P
                                                437992-87-5P
     RL: IMF (Industrial manufacture); PRP (Properties); TEM
     (Technical or engineered material use); PREP (Preparation); USES
     (Uses)
        (water-borne coating compn. contg. urethane compd. forming
        smooth multilayer coating film with good flip-flop property)
IT
     438195-86-9, Adekanol SDX 1014
                                      438200-71-6, Adekanol UH 750
     RL: MOA (Modifier or additive use); USES (Uses)
        (water-borne coating compn. contg. urethane compd. forming
        smooth multilayer coating film with good flip-flop property)
ΙT
     372166-28-4, Primepol PX-1000
```

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(water-borne coating compn. contg. urethane compd. forming smooth multilayer coating film with good flip-flop property) 3089-17-6, Cinquasia Magenta B-RT 343D 5521-31-3, Maroon R 6436 ΙT 13463-67-7, Titanium dioxide, uses 261779-08-2, 9003-08-1, Cymel 204 Iriodin 502WII 438223-82-6, Iriodin NP Russet WII RL: TEM (Technical or engineered material use); USES (Uses) (water-borne coating compn. contg. urethane compd. forming

smooth multilayer coating film with good flip-flop property)

IT 437992-86-4P

> RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES

(pigment dispersant; water-borne coating compn. contg. urethane compd. forming smooth multilayer coating film with good flip-flop property)

437992-86-4 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with dodecyl 2-methyl-2-propenoate, CN ethenylbenzene, 2-ethylhexyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-(phosphonooxy)poly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM

CRN 95175-93-2 CMF (C3 H6 O)n C4 H7 O5 P CCI IDS, PMS

$$^{\text{H}_2\text{C}}_{\text{Me}-\text{C}-\text{C}} \circ$$

CM

CRN 868-77-9 CMF C6 H10 O3

CM 3

CRN 142-90-5 CMF C16 H30 O2

$$$^{
m O}_{
m H2}$$$
 Me- (CH2)  $_{
m 11}$  -O- C- C- Me

CRN 103-11-7 CMF C11 H20 O2

$$\begin{array}{c} \text{O} & \text{||} \\ \text{CH}_2-\text{O-C-CH} = \text{CH}_2 \\ \text{|} \\ \text{Et-CH-Bu-n} \end{array}$$

CM 5

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 6

CRN 79-41-4 CMF C4 H6 O2

IT 161487-11-2P 437992-82-0P 437992-84-2P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(water-borne coating compn. contg. urethane compd. forming smooth multilayer coating film with good flip-flop property)

RN 161487-11-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, ethyl 2-propenoate, 2-hydroxyethyl 2-propenoate and methyl 2-methyl-2-propenoate, compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0 CMF C4 H11 N O

 $\text{Me}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{OH}$ 

CM 2

CRN 25464-22-6

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SHOSHO 09/869549

Page 27 11/08/2002

CMF (C8 H8 . C5 H8 O3 . C5 H8 O2 . C5 H8 O2 . C4 H6 O2)x CCI PMS

CM 3

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} {\rm O} \\ || \\ {\rm HO-CH_2-CH_2-O-C-CH} \end{array}$$

CM 4

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{EtO-C-CH----} \text{CH}_2 \end{array}$$

CM 5

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 6

CRN 80-62-6 CMF C5 H8 O2

CM 7

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

RN 437992-82-0 HCAPLUS

2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, ethyl 2-propenoate, 2-hydroxyethyl 2-propenoate, methyl 2-propenoate, CN .alpha.-[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethyl]-.omega.hydroxypoly(oxy-1,2-ethanediyl), 2-propenamide and .alpha.-sulfo-.omega.-[4-nonyl-2-(1-propenyl)phenoxy]poly(oxy-1,2-ethanediyl) monoammonium salt, compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0 C4 H11 N O CMF

 $Me_2N-CH_2-CH_2-OH$ 

CM 2

CRN 437992-81-9

(C8 H8 . C5 H8 O3 . C5 H8 O2 . C4 H6 O2 . C4 H6 O2 . C3 H5 N O . (C2 CMF H4 O)n C21 H34 O3 . (C2 H4 O)n C18 H28 O4 S . H3 N)x CCI PMS

CM 3

CRN 140651-97-4 (C2 H4 O)n C18 H28 O4 S . H3 N CMF CCI PMS

$$HO_3S$$
  $O-CH_2-CH_2$   $N=CH$   $O-CH_2-CH_2$   $N=CH$ 

● ИНЗ

CM

CRN 111144-60-6

CMF (C2 H4 O)n C21 H34 O3

CCI IDS, PMS



$$D1-(CH_2)_8-Me$$

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} {}^{\text{O}}_{||} \\ {}^{\text{HO}-}\,{}^{\text{CH}}_2 - {}^{\text{CH}}_2 - {}^{\text{C}-}\,{}^{\text{CH}} = {}^{\text{CH}}_2 \end{array}$$

CM 6

CRN 140-88-5 CMF C5 H8 O2

CM 7

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM

CRN 96-33-3 CMF C4 H6 O2

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 10

CRN 79-06-1 CMF C3 H5 N O

$$^{O}_{||}_{H_2N-C-CH=CH_2}^{O}$$

437992-84-2 HCAPLUS 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate, CN 2-hydroxyethyl 2-propenoate, methyl 2-propenoate, .alpha.-[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethyl]-.omega.-hydroxypoly(oxy-1,2ethanediyl) and 2-propenamide and .alpha.-sulfo-.omega.-[4-nonyl-2-(1-propenyl)phenoxy]poly(oxy-1,2-ethanediyl) monoammonium salt, compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0 CMF C4 H11 N O

 $Me_2N-CH_2-CH_2-OH$ 

CM 2

CRN 437992-83-1

(C5 H8 O3 . C5 H8 O2 . C4 H6 O2 . C4 H6 O2 . C3 H5 N O . (C2 H4 O) n CMF C21 H34 O3 . (C2 H4 O)n C18 H28 O4 S . H3 N)x

CCI

CM 3

CRN 140651-97-4

CMF (C2 H4 O)n C18 H28 O4 S . H3 N

CCI

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

$$HO_3S$$
  $O-CH_2-CH_2$   $n$   $Me-CH$   $CH$ 

● инз

CM

CRN 111144-60-6 CMF (C2 H4 O)n C21 H34 O3 CCI IDS, PMS

$$D1-(CH_2)_8-Me$$

$$H_2C = CH - CH_2 - O - CH_2 - CH - O - CH_2 - CH_2 - O - CH_2 -$$

CM 5

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH----} \text{CH}_2 \end{array}$$

CM 6

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{EtO-C-CH-----} \text{CH}_2 \end{array}$$

CRN 96-33-3 CMF C4 H6 O2

CM 8

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 9

CRN 79-06-1 CMF C3 H5 N O

L23 ANSWER 7 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:396616 HCAPLUS

DN 136:403218

TI Method for manufacturing aqueous polymer compositions for dispersing pigments and water-thinned coating compositions containing them

IN Sho, Katsuhiko; Ooiwa, Masanori

PA Nippon Paint Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D017-00

ICS B01F017-52; C08F002-24; C08F002-38; C08F008-44; C08F290-06; C08L055-00; C09B067-20; C09B067-46; C09C003-10; C09D005-02; C09D171-02; C09D201-00

CC 42-6 (Coatings, Inks, and Related Products)

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

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FAN.CNT 1
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KIND DATE APPLICATION NO. DATE PATENT NO. JP 2002155229 A2 20020528 JP 2000-357111 20001124

PΙ

- The method contains (A) prepg. emulsion polymer compns. with Mn AB .ltoreq.25,000 by emulsion polymn. of ethylenically unsatd. monomer mixts. with acid value .gtoreq.30 contg. monomers bearing poly(alkylene oxide) chains in the presence of mol.-wt. controllers and polymn. initiators and (B) neutralizing the compns. with basic neutralizing agents. Thus, a compns. contg. an emulsion, prepd. from styrene 5, 2-ethylhexyl acrylate 23, Et acrylate 26, Me methacrylate 23, Aqualon RN 10 (polyoxyethylene-contg. nonionic reactive emulsifier) 10, methacrylic acid 13, and Aqualon HS 10 (anionic reactive emulsifier) 3 parts and neutralized with dimethylethanolamine, 140, phthalocyanine blue 40, and H2O 19 parts showed org. solvent content 0% and good transparency and storage stability.
- pigment dispersibility polyoxyalkylene graft polymer neutralization; water ST thinned coating pigment storage stability; emulsion pigment dispersion org solvent free
- ΙT Polyoxyalkylenes, uses RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic, graft, neutralized, pigment dispersions; pigment dispersions with good storage stability for water-thinned coatings with minimized

volatile org. compds.)

Dispersing agents Pigments, nonbiological

(pigment dispersions with good storage stability for water-thinned coatings with minimized volatile org. compds.)

IT Coating materials

IT

(storage-stable, water-thinned; pigment dispersions with good storage stability for water-thinned coatings with minimized volatile org.

79-10-7D, Acrylic acid, derivs., polymers with styrene 100-42-5D, IT Styrene, polymers with acrylic acid deriv. 431058-96-7, Saivinol NP 615 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(binder; pigment dispersions with good storage stability for water-thinned coatings with minimized volatile org. compds.)

IT 430475-48-2P, Aqualon HS 10-Aqualon RN 10-ethyl acrylate-2-ethylhexyl acrylate-methacrylic acid-methyl methacrylate-styrene graft copolymer 2-dimethylaminoethanol salt 430475-50-6P, Ethyl acrylate-2-ethylhexyl acrylate-methacrylic acid-methyl methacrylate-oxirane-styrene graft copolymer 2-dimethylaminoethanol salt 430475-52-8P 430475-54-0P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pigment dispersions; pigment dispersions with good storage stability for water-thinned coatings with minimized volatile org. compds.)

147-14-8, Phthalocyanine blue ΙT

> RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(pigment dispersions; pigment dispersions with good storage stability for water-thinned coatings with minimized volatile org. compds.)

TT 430475-52-8P 430475-54-0P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pigment dispersions; pigment dispersions with good storage stability for water-thinned coatings with minimized volatile org. compds.)

430475-52-8 HCAPLUS RN

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, 2-ethylhexyl 2-propenoate, ethyl 2-propenoate, methyl 2-methyl-2-propenoate, .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2ethanediyl) and .alpha.-sulfo-.omega.-[4-nonyl-2-(1propenyl)phenoxy]poly(oxy-1,2-ethanediyl) ammonium salt, graft, compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0 C4 H11 N O CMF

 ${\tt Me_2N-CH_2-CH_2-OH}$ 

CM 2

CRN 430475-51-7

CMF (C11 H20 O2 . C8 H8 . C5 H8 O2 . C5 H8 O2 . C4 H6 O2 . (C2 H4 O)n C18 H28 O4 S . (C2 H4 O)n C4 H6 O2 . H3 N)x

CCI PMS

> 3 CM

CRN 140651-97-4

CMF (C2 H4 O)n C18 H28 O4 S . H3 N

CCI PMS

● инз

CM 4

CRN 25736-86-1

CMF (C2 H4 O)n C4 H6 O2

CCI PMS

$$\begin{array}{c|c} \text{H}_2\text{C} & \text{O} \\ \parallel & \parallel & \parallel \\ \text{Me-C-C-C} & \text{O-CH}_2\text{-CH}_2 & \text{OH} \end{array}$$

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{Eto-C-CH----} \text{CH}_2 \end{array}$$

CM 6

CRN 103-11-7 CMF C11 H20 O2

$$_{\text{CH}_2-\text{O-C-CH}}^{\text{O}} = _{\text{CH}_2}^{\text{CH}_2}$$
 $_{\text{Et-CH-Bu-n}}^{\text{CH}_2-\text{CH}_2}$ 

CM

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 8

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{ccc} ^{H_2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{OMe} \end{array}$$

CM 9

CRN 79-41-4 CMF C4 H6 O2

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

RN 430475-54-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, 2-ethylhexyl 2-propenoate, ethyl 2-propenoate, methyl 2-methyl-2-propenoate and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl), graft, compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0 CMF C4 H11 N O

 $\text{Me}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{OH}$ 

CM 2

CRN 430475-53-9

CMF (C11 H20 O2 . C8 H8 . C5 H8 O2 . C5 H8 O2 . C4 H6 O2 . (C2 H4 O) n C4 H6 O2 . C2 H4 O) x

CCI PMS

CM 3

CRN 25736-86-1

CMF (C2 H4 O)n C4 H6 O2

CCI PMS

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ \parallel & \parallel & \parallel \\ \text{Me-C-C-C-} & \text{O-CH}_2\text{--CH}_2 & \text{--} \\ \end{array}$$

CM 4

CRN 140-88-5 CMF C5 H8 O2

CM 5

CRN 103-11-7

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

CMF C11 H20 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_2\text{--O-C-CH} \Longrightarrow \text{CH}_2 \\ \parallel \\ \text{Et-CH-Bu-n} \end{array}$$

CM 6

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 7

CRN 80-62-6 CMF C5 H8 O2

CM

CRN 79-41-4 CMF C4 H6 O2

CM

CRN 75-21-8 CMF C2 H4 O

L23 ANSWER 8 OF 55 HCAPLUS COPYRIGHT 2002 ACS

2002:396583 HCAPLUS AN

DN 136:403224

Manufacture of solvent-free waterborne resin compositions as

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

pigment dispersants and paints therefrom

Sho, Katsuhiko; Ooiwa, Masanori IN

Nippon Paint Co., Ltd., Japan PΑ

SO Jpn. Kokai Tokkyo Koho, 7 pp. CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F002-22

C08F002-44; C08F008-00; C08F290-06; C08K003-00; C08L055-00; C09D005-02; C09D017-00; C09D133-04; C09D155-00

CC 42-7 (Coatings, Inks, and Related Products)

FAN.CNT 1

APPLICATION NO. DATE PATENT NO. KIND DATE ---------\_\_\_\_\_

JP 2002155106 A2 20020528 JP 2000-357112 20001124 PΙ

AB The process comprises emulsion polymn. of ethylenically unsatd. monomer compns., consisting of poly(alkylene oxide)-bearing monomers and amino-bearing monomers and satisfying amine value .gtoreq.30, in the presence of mol.-wt. controllers and polymn. initiators to give emulsions with Mn .ltoreq.25,000 followed by neutralization with acidic neutralizers. Pigment dispersions comprising the resin compns. and VOC (volatile org. compd.)-minimized waterborne paints contg. the dispersions are also claimed. Thus, a monomer compn. of amine value 80 consisting of styrene, 2-ethylhexyl acrylate, Et acrylate, Me methacrylate, Aqualon RN 10 (decaethoxylated reactive emulsifier), dimethylaminoethyl methacrylate, and Latemul K 180 (cationic reactive emulsifier) was polymd. in the presence of dodecyl mercaptan and VA 061 [2,2'-azobis[2-(2-imidazolin-2-yl)propane]] and neutralized with AcOH to give a transparent resin compn. with Mn 7000, 140 parts of which was mixed with phthalocyanine blue 40, BYK 022 (defoaming agent) 1, and water 19 parts to give a dispersion showing av. particle size <20 .mu.m after 30-day storage at 40.degree.. A blue paint contq. the dispersion and Kanebinol KD 20 (cationic acrylic silicone) formed a glossy paint layer with cross-cut adhesion test 100/100 on a slate.

ST polyoxyalkylene acrylic dispersant storage stability waterborne paint; acetate neutralized acrylic polyoxyalkylene pigment dispersant; solvent free paint pigment dispersant acrylic

IT Polysiloxanes, uses

> RL: TEM (Technical or engineered material use); USES (Uses) (acrylic, Kanebinol KD 20, binders; manuf. of solvent-free acrylic polyoxyalkylene-based pigment dispersants for aq. paints)

IT Polyoxyalkylenes, uses

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic; manuf. of solvent-free acrylic polyoxyalkylene-based pigment dispersants for aq. paints)

IT Polymerization

> (emulsion; manuf. of solvent-free acrylic polyoxyalkylene-based pigment dispersants for aq. paints)

IT Dispersing agents

(manuf. of solvent-free acrylic polyoxyalkylene-based pigment dispersants for aq. paints)

ΙT Paints

(water-thinned; manuf. of solvent-free acrylic polyoxyalkylene-based pigment dispersants for aq. paints)

431874-81-6P, Aqualon RN 10-dimethylaminoethyl methacrylate-ethyl IT acrylate-2-ethylhexyl acrylate-Latemul K 180-methyl methacrylate-styrene copolymer acetate

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP

(Preparation); USES (Uses)

(manuf. of solvent-free acrylic polyoxyalkylene-based pigment dispersants for aq. paints)

IT 431874-81-6P, Aqualon RN 10-dimethylaminoethyl methacrylate-ethyl acrylate-2-ethylhexyl acrylate-Latemul K 180-methyl methacrylate-styrene copolymer acetate

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of solvent-free acrylic polyoxyalkylene-based pigment dispersants for aq. paints)

RN 431874-81-6 HCAPLUS

CN 1-Octadecanaminium, N-[2-hydroxy-3-(2-propenyloxy)propyl]-N, N-dimethyl-, chloride, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate, ethenylbenzene, 2-ethylhexyl 2-propenoate, ethyl 2-propenoate, methyl 2-methyl-2-propenoate and .alpha.-[4-nonyl-2-(1-propenyl)phenyl]-.omega.-hydroxypoly(oxy-1,2-ethanediyl), acetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 64-19-7 CMF C2 H4 O2

CM 2

CRN 431874-80-5

CMF (C26 H54 N O2 . C11 H20 O2 . C8 H15 N O2 . C8 H8 . C5 H8 O2 . C5 H8 O2 . (C2 H4 O)n C18 H28 O . C1)x

CCI PMS

CM 3

CRN 146847-27-0

CMF (C2 H4 O)n C18 H28 O

CCI PMS

Me- (CH<sub>2</sub>)<sub>8</sub>

$$O-CH2-CH2 OH$$

$$CH=CH-Me$$

CM 4

CRN 98241-54-4 CMF C26 H54 N O2 . C1

● Cl -

CM

CRN 2867-47-2 CMF C8 H15 N O2

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{Me}_2 \text{N-CH}_2 \text{--CH}_2 \text{--O-C-C-Me} \end{array}$$

CM

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} {}^{\text{O}} \\ || \\ \text{EtO-C-CH-----} \text{CH}_2 \end{array}$$

7 CM

CRN 103-11-7 CMF C11 H20 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_2 - \text{O} - \text{C} - \text{CH} == \text{CH}_2 \\ \parallel \\ \text{Et} - \text{CH} - \text{Bu-n} \end{array}$$

CM

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CRN 80-62-6 CMF C5 H8 O2

H<sub>2</sub>C O || || Me-C-C-OMe

L23 ANSWER 9 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:293725 HCAPLUS

DN 136:327415

TI Resins for dispersing a pigment in water-based coating compositions and inks

IN Nakajima, Yoshio; Yukawa, Yoshiyuki; Kamimori, Isao; Yamanouchi, Akihiko; Hoshida, Yuko

PA Kansai Paint Co., Ltd., Japan

SO PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C08F290-06

ICS C09D005-00; C09D007-12; C09D011-00; B41J002-01; B41M005-00; C09C003-10

CC 46-4 (Surface Active Agents and Detergents)

Section cross-reference(s): 42

FAN.CNT 1

PI

W: JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

PRAI JP 2000-314381 A 20001013 JP 2001-82740 A 20010322

AB The resins comprise copolymers of a polymerizable unsatd. monomer having at least 1 ionic functional group selected among quaternary ammonium salt groups and a sulfo group, a nonionic polymerizable unsatd. monomer having a polyoxyalkylene chain, and other ethylenic monomers. Thus, adding a mixt. of styrene 10, Me methacrylate 40, Bu methacrylate 25, 2-hydroxyethyl methacrylate 10, methacrylic acid 3, 2- (methacryloyloxy)ethyltrimethylammonium chloride 7, NF Isomer PEM6E (PEG monomethacrylate) 5, AIBN 4 and i-BuOH 15 to ethylene glycol monobutyl ether 45 parts heated at 110.degree. over 3 h, maturing at 110.degree. for 30 min, adding ethylene glycol monobutyl ether 20 and AIBN 0.5 parts over 1 h and heating at 110.degree. for 1 h gave a dispersant soln. with solids content 55%. Water-based coating and ink compns. using the dispersant had good performance and freedom from agglomeration.

agglomeration redn pigment dispersion quaternary ammonium unsatd acid polymer; nonionic monomer copolymer dispersant ink coating water based compn; polyoxyalkylene macromer copolymer dispersant water based ink coating

IT Polyesters, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(binders; resins for dispersing a pigment in water-based coating

compns. and inks) IT Aminoplasts RL: MOA (Modifier or additive use); USES (Uses) (curing agent; resins for dispersing a pigment in water-based coating compns. and inks) ΙT Carbon black, uses RL: TEM (Technical or engineered material use); USES (Uses) (pigment, Raven 5000UIII; resins for dispersing a pigment in water-based coating compns. and inks) ΙT Dispersing agents Pigments, nonbiological (resins for dispersing a pigment in water-based coating compns . and inks) ΙT Coating materials Inks (water-thinned; resins for dispersing a pigment in water-based coating compns. and inks) TI 72065-17-9P 412304-20-2P 412304-28-0P RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (binder; resins for dispersing a pigment in water-based coating compns. and inks) 9003-08-1, Cymel 325 ΙT RL: MOA (Modifier or additive use); USES (Uses) (curing agent; resins for dispersing a pigment in water-based coating compns. and inks) IT 412303-90-3P 412303-96-9P 412304-01-9P 412304-04-2P 412304-09-7P 412304-12-2P 412304-15-5P 412304-30-4P 412304-32-6P 412304-34-8P 412304-36-0P 412304-38-2P 412304-40-6P 412304-42-8P RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (dispersant; resins for dispersing a pigment in water-based coating compns. and inks) 147-14-8, C.I. Pigment Blue 15:3 980-26-7, C.I. Pigment Red 122 TT 12239-87-1, Cyanine Blue G 314 152231-97-5, MT-500HD 323179-22-2, Magenta RT-355D RL: TEM (Technical or engineered material use); USES (Uses) (pigment; resins for dispersing a pigment in water-based coating compns. and inks) RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD (1) Ajinomoto Co Inc; JP 2000204281 A 2000 HCAPLUS (2) Dainippon Printing Co Ltd; JP 200095992 A 2000 (3) Hitachi Maxell Ltd; JP 11130999 A 1999 HCAPLUS (4) Imperial Chemical Industries Plc; JP 06100642 A 1993 HCAPLUS (5) Imperial Chemical Industries Plc; CN 1077718 A 1993 (6) Imperial Chemical Industries Plc; AT 152141 T 1993 (7) Imperial Chemical Industries Plc; CA 2092598 A1 1993 HCAPLUS (8) Imperial Chemical Industries Plc; ES 2100455 T 1993 HCAPLUS (9) Imperial Chemical Industries Plc; JP 2113497 C 1993 (10) Imperial Chemical Industries Plc; KR 236021 B 1993 (11) Imperial Chemical Industries Plc; NZ 247206 A 1993 (12) Imperial Chemical Industries Plc; AU 3705293 A 1993 (13) Imperial Chemical Industries Plc; ZW 4293 A 1993 (14) Imperial Chemical Industries Plc; US 5349036 A1 1993 HCAPLUS (15) Imperial Chemical Industries Plc; EP 567214 A1 1993 HCAPLUS

(16) Imperial Chemical Industries Plc; DE 69310011 D 1993

- (17) Imperial Chemical Industries Plc; GB 9208535 D 1993
- (18) Imperial Chemical Industries Plc; BR 9301596 A 1993 HCAPLUS
- (19) Imperial Chemical Industries Plc; MX 9302274 A 1993
- (20) Imperial Chemical Industries Plc; GB 9304904 D 1993
- (21) Jsr Corporation; JP 20007734 A 2000
- (22) Kansai Paint Co Ltd; JP 10245426 A 1998 HCAPLUS
- (23) Kansai Paint Co Ltd; JP 10306236 A 1998 HCAPLUS
- (24) Kansai Paint Co Ltd; DE 19809443 A 1998 HCAPLUS
- (25) Kansai Paint Co Ltd; GB 2322863 A 1998 HCAPLUS
- (26) Kansai Paint Co Ltd; KR 258779 B 1998
- (27) Kansai Paint Co Ltd; TW 385327 B 1998 HCAPLUS
- (28) Kansai Paint Co Ltd; GB 9804586 AO 1998
- (29) Kao Corporation; JP 02180911 A 1990 HCAPLUS
- (30) Kao Corporation; AT 124427 T 1990
- (31) Kao Corporation; JP 1938376 C 1990
- (32) Kao Corporation; HK 200896 A 1990
- (33) Kao Corporation; ES 2076195 T 1990 HCAPLUS
- (34) Kao Corporation; PH 27392 A 1990
- (35) Kao Corporation; EP 372546 A2 1990 HCAPLUS
- (36) Kao Corporation; US 5278269 A1 1990 HCAPLUS
- (37) Kao Corporation; DE 68923253 C 1990
- (38) Kao Corporation; JP 09183926 A 1998 HCAPLUS
- (39) Kao Corporation; DE 19654752 A 1998 HCAPLUS
- (40) Kao Corporation; US 5736606 A 1998 HCAPLUS
- (41) Kawaken Fine Chemicals Co Ltd; JP 11197485 A 1999 HCAPLUS
- (42) Kuraray Co Ltd; JP 09272721 A 1997 HCAPLUS
- (43) Lion Corporation; JP 03239709 A 1991 HCAPLUS
- (44) Mitsubishi Paper Mills Ltd; JP 978056 A 1997
- (45) Nippon Paint Co Ltd; JP 2000336292 A 2000 HCAPLUS
- (46) Nof Corporation; JP 09255740 A 1997 HCAPLUS
- (47) Nof Corporation; EP 798320 A2 1997 HCAPLUS (48) Osaka Toryo Kogyo Kyodo Kumiai; JP 07252395 A 1995 HCAPLUS
- (49) Sanyo Chemical Industries Ltd; JP 790218 A 1995
- (50) Taiho Ind Co Ltd; JP 11228897 A 1999 HCAPLUS
- (51) Toyo Ink Manufacturing Co Ltd; JP 1030010 A 1998
- (52) Toyo Ink Seizo K K; JP 10139999 A 1998 HCAPLUS
- 72065-17-9P 412304-28-0P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(binder; resins for dispersing a pigment in water-based coating compns. and inks)

RN72065-17-9 HCAPLUS

2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl CN 2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate and 2-propenoic acid, compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM

CRN 108-01-0 CMF C4 H11 N O

 $Me_2N-CH_2-CH_2-OH$ 

CM

CRN 55993-98-1

SHOSHO 09/869549 Page 44 11/08/2002

CMF (C8 H8 . C7 H12 O2 . C6 H10 O3 . C5 H8 O2 . C3 H4 O2)  $\times$ CCI PMS

CM 3

CRN 868-77-9 CMF C6 H10 O3

CM

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH----} \text{CH}_2 \end{array}$$

CM 5

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM

CRN 80-62-6 CMF C5 H8 O2

7 CM

CRN 79-10-7 CMF C3 H4 O2

RN 412304-28-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene, 2-hydroxyethyl 2-propenoate and 2-propenyl 2-methyl-2-propenoate, compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0 CMF C4 H11 N O

 $Me_2N-CH_2-CH_2-OH$ 

CM 2

383901-58-4

(C8 H8 . C7 H12 O2 . C7 H10 O2 . C5 H8 O3 . C4 H6 O2)  $\times$ 

CCI PMS

> CM 3

CRN 818-61-1 CMF C5 H8 O3

0  $HO-CH_2-CH_2-O-C-CH=CH_2$ 

CM

CRN 141-32-2 CMF C7 H12 O2

0  $n-BuO-C-CH \longrightarrow CH_2$ 

> CM 5

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM6

CRN 96-05-9 C7 H10 O2 CMF

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

IT 412303-90-3P 412303-96-9P 412304-01-9P 412304-04-2P 412304-09-7P 412304-12-2P 412304-15-5P 412304-30-4P 412304-32-6P 412304-34-8P 412304-36-0P 412304-38-2P 412304-40-6P 412304-42-8P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (dispersant; resins for dispersing a pigment in water-based coating company, and inks)

RN 412303-90-3 HCAPLUS CN Ethanaminium, N.N.N-t

Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate, alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and 2-methyl-2-propenoic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 25736-86-1 CMF (C2 H4 O)n C4 H6 O2 CCI PMS

$$H_2C$$
 O  $H_2$   $H_2$   $H_2$   $H_3$   $H_4$   $H_4$   $H_4$   $H_5$   $H_5$   $H_6$   $H_6$   $H_7$   $H_8$   $H$ 

CM 2

CRN 5039-78-1 CMF C9 H18 N O2 . Cl

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} {}^{O}_{||} \\ {}^{HO-CH_2-CH_2-O-C-CH-} \\ \end{array} CH_2$$

CM 4

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 5

CRN 97-88-1 CMF C8 H14 O2

CM6

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-} \text{C-} \text{C-} \text{OMe} \end{array}$$

CM 7 CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2\text{H} \end{array}$$

RN 412303-96-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 25736-86-1 CMF (C2 H4 O)n C4 H6 O2 CCI PMS

$$H_2C$$
 O  $H_2C$  O  $H_2C$   $H_2C$  OF  $H_2C$  OF  $H_2C$ 

CM 2

CRN 15214-89-8 CMF C7 H13 N O4 S

$$\begin{array}{c} \text{NH-C-CH} = \text{CH}_2 \\ \text{NH-C-CH} = \text{CH}_2 \\ \text{Me-C-CH}_2 = \text{SO}_3\text{H} \\ \text{Me} \end{array}$$

CM 3

CRN 868-77-9 CMF C6 H10 O3

CM 4

CMF C8 H8

 $H_2C = CH - Ph$ 

CM 5

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM

CRN 80-62-6 CMF C5 H8 O2

RN 412304-01-9 HCAPLUS

CN Ethanaminium, N, N, N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS

$$H_2C$$
 O  $H_2C$  O  $H_2C$   $H_2C$  OMe

CM

CRN 5039-78-1 CMF C9 H18 N O2 . C1

• c1-

CM 3

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{--CH}_2\text{--O-C-CH} \end{array}$$

CM 4

CRN 141-32-2 CMF C7 H12 O2

CM 5

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & o \\ \parallel & \parallel \\ \text{Me-} \text{C--C--OMe} \end{array}$$

RN 412304-04-2 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate, isooctadecyl 2-propenoate, methyl 2-methyl-2-propenoate and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 93841-48-6 CMF C21 H40 O2

CCI IDS

$$(iso-C_{18}H_{37}) - O-C-CH = CH_2$$

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS

$$H_2C$$
 O  $\parallel$   $\parallel$   $\parallel$   $\parallel$  O  $CH_2-CH_2$  OME

CM 3

CRN 5039-78-1 CMF C9 H18 N O2 . C1

$$\begin{array}{c|cccc} & & & \text{O} & \text{CH}_2 \\ & & || & || \\ \text{Me}_3 \text{+N} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

● c1-

CM

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array}$$

5 CM

CRN 141-32-2 CMF C7 H12 O2

CRN 80-62-6 CMF C5 H8 O2

RN 412304-09-7 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with butyl 2-propenoate, 2-(dimethylamino)ethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS

$$H_2C$$
 O  $H_2C$  O  $H_2CH_2$  OMe

CM 2

CRN 5039-78-1

CMF C9 H18 N O2 . C1

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || \\ \text{Me}_3 \text{+N} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

● C1-

CM 3

CRN 2867-47-2 CMF C8 H15 N O2

CRN 818-61-1 CMF C5 H8 O3

CM 5

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \end{array} = \text{CH}_2$$

CM 6

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{ccc} ^{\text{H}_2\text{C}} & \text{O} \\ & \parallel & \parallel \\ \text{Me-C-C-OMe} \end{array}$$

RN 412304-12-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS

$$\begin{array}{c|c} ^{H2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-C-C} & \text{C-CH}_2\text{--CH}_2 \\ \hline \end{array} \begin{array}{c} \text{OMe} \\ \end{array}$$

CRN 15214-89-8 CMF C7 H13 N O4 S

$$\begin{array}{c} \text{O} \\ || \\ \text{NH-C-CH} = \text{CH}_2 \\ | \\ \text{Me-C-CH}_2 - \text{SO}_3 \text{H} \\ | \\ \text{Me} \end{array}$$

CM 3

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} {}^{\text{O}}_{||} \\ {}^{\text{HO}-\text{CH}_2-\text{CH}_2-\text{O}-\text{C}-\text{CH}---} \\ {}^{\text{CH}_2} \end{array}$$

CM 4

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \longrightarrow \text{CH}_2 \end{array}$$

CM 5

CRN 80-62-6 CMF C5 H8 O2

RN 412304-15-5 HCAPLUS

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2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate, isooctadecyl 2-propenoate, CN 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 93841-48-6 CMF C21 H40 O2 CCI

$$\begin{array}{c} & \text{O} \\ || \\ \text{(iso-C}_{18}\text{H}_{37}\text{)} - \text{O-C-CH} = \text{CH}_2 \end{array}$$

CM 2

CRN 26915-72-0 CMF (C2 H4 O)n C5 H8 O2 CCI PMS

$$\begin{array}{c|c} ^{H2C} & \text{O} \\ \parallel & \parallel \\ \text{Me} - \text{C} - \text{C} \end{array} \begin{array}{c} \text{O} - \text{CH}_2 - \text{CH}_2 \\ \hline \end{array} \text{OMe}$$

CM 3

CRN 15214-89-8 CMF C7 H13 N O4 S

$$\begin{array}{c} & \text{O} \\ || \\ \text{NH-C-CH} \\ -| \\ \text{Me-C-CH}_2 - \text{SO}_3\text{H} \\ -| \\ \text{Me} \end{array}$$

CM

CRN 818-61-1 CMF C5 H8 O3

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c}
0 \\
\parallel \\
n-BuO-C-CH \longrightarrow CH_2
\end{array}$$

CM 6

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{ccc} ^{H_2C} & \text{O} \\ & \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{OMe} \end{array}$$

RN 412304-30-4 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate, 2-methyl-2-propenoic acid and oxirane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . C1

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || & || \\ \text{Me}_3 + \text{N} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

• cl-

CM 2

CRN 818-61-1 CMF C5 H8 O3

 $\begin{array}{c} {\rm O} \\ || \\ {\rm HO-CH_2-CH_2-O-C-CH} \end{array} \\ {\rm CH_2} \\ \\ \end{array}$ 

CM 3

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 4

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 5

CRN 80-62-6 CMF C5 H8 O2

CM 6

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 7

CRN 75-21-8 CMF C2 H4 O



RN 412304-32-6 HCAPLUS 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenylbenzene, CN2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and oxirane, graft (9CI) (CA INDEX NAME)

CRN 15214-89-8 CMF C7 H13 N O4 S

$$\begin{array}{c} \text{O} \\ || \\ \text{NH-C-CH} = \text{CH}_2 \\ | \\ \text{Me-C-CH}_2 - \text{SO}_3\text{H} \\ | \\ \text{Me} \end{array}$$

CM 2

CRN 868-77-9 CMF C6 H10 O3

CM 3

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 5

CRN 80-62-6 CMF C5 H8 O2

CRN 75-21-8 CMF C2 H4 O



RN 412304-34-8 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate and oxirane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1 CMF C9 H18 N O2 . C1

● Cl-

CM 2

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} {\rm O} \\ || \\ {\rm HO-CH_2-CH_2-O-C-CH} \end{array} \\ {\rm CH_2} \\$$

CM 3

CRN 141-32-2 CMF C7 H12 O2

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ \parallel & \parallel \\ \text{Me--} & \text{C---} \text{OMe} \end{array}$$

5 CM

CRN 75-21-8 CMF C2 H4 O



RN 412304-36-0 HCAPLUS

Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate, isooctadecyl 2-propenoate, methyl 2-methyl-2-propenoate and oxirane, graft CN (9CI) (CA INDEX NAME)

CM 1

CRN 93841-48-6 CMF C21 H40 O2 CCI IDS

$$(iso-C_{18}H_{37}) - O - C - CH == CH_2$$

CM 2

CRN 5039-78-1 CMF C9 H18 N O2 . C1

● cl-

CM

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} {\rm O} \\ || \\ {\rm HO-CH_2-CH_2-O-C-CH} \end{array}$$

CM

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH------} \text{CH}_2 \end{array}$$

CM

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{\text{H}_2\text{C}} & \text{O} \\ \parallel & \parallel \\ \text{Me-C-C-OMe} \end{array}$$

CM

CRN 75-21-8 CMF C2 H4 O

412304-38-2 HCAPLUS RN

Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,

chloride, polymer with butyl 2-propenoate, 2-(dimethylamino)ethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate and oxirane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . C1

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || \\ \text{Me}_3 \text{+N-CH}_2 \text{-CH}_2 \text{-O-C-C-Me} \end{array}$$

• c1-

CM 2

CRN 2867-47-2 CMF C8 H15 N O2

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{Me}_2 \text{N-CH}_2 - \text{CH}_2 - \text{O-C-C-Me} \end{array}$$

CM 3

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} & \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH-----} \text{CH}_2 \end{array}$$

CM 4

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH----} \text{CH}_2 \end{array}$$

CM 5

CRN 80-62-6

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$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ & || & || \\ \text{Me-} & \text{C-} & \text{C-} & \text{OMe} \end{array}$$

CRN 75-21-8 CMF C2 H4 O



RN 412304-40-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and oxirane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8 CMF C7 H13 N O4 S

$$\begin{array}{c} \text{O} \\ || \\ \text{NH-C-CH} = \text{CH}_2 \\ | \\ \text{Me-C-CH}_2 - \text{SO}_3\text{H} \\ | \\ \text{Me} \end{array}$$

CM 2

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} .0 \\ .|| \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \\ \end{array}$$

CM 3

CRN 141-32-2 CMF C7 H12 O2

CRN 80-62-6 CMF C5 H8 O2

5 CM

CRN 75-21-8 CMF C2 H4 O



RN 412304-42-8 HCAPLUS

2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl CN 2-propenoate, 2-hydroxyethyl 2-propenoate, isooctadecyl 2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and oxirane, graft (9CI) (CA INDEX NAME)

CM1

CRN 93841-48-6 CMF C21 H40 O2 CCI IDS

$$(iso-C_{18}H_{37}) - O - C - CH = CH_{2}$$

CM

CRN 15214-89-8 CMF C7 H13 N O4 S

$$\begin{array}{c} \text{O} \\ || \\ \text{NH-C-CH} = \text{CH}_2 \\ | \\ \text{Me-C-CH}_2 - \text{SO}_3\text{H} \\ | \\ \text{Me} \end{array}$$

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} {\rm O} \\ || \\ {\rm HO-CH_2-CH_2-O-C-CH} \end{array}$$

CM

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH----} \text{CH}_2 \end{array}$$

CM 5

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{ccc} ^{H_2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{OMe} \end{array}$$

CM 6

CRN 75-21-8 CMF C2 H4 O



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DN 136:311289 Acrylic graft copolymer having mixed anionic and nonionic side chains as pigment dispersants for water-thinned coatings Visscher, Karyn B.; McIntyre, Patrick F. IN E.I. Du Pont De Nemours and Company, USA PA Eur. Pat. Appl., 12 pp. CODEN: EPXXDW DT Patent English LA IC ICM C09D151-00 C08F290-04; C08F290-06 CC 42-6 (Coatings, Inks, and Related Products) FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_ EP 2001-120557 ÉP 1197536 A2 20020417 20010829 PΙ R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO Α 20020730 BR 2001-5365 20010917 BR 2001005365 JP 2001-294781 JP 2002179978 Α2 20020626 20010926 20010927 CN 1346858 Α 20020501 CN 2001-140798 Α PRAI US 2000-670359 20000927 The graft copolymer with wt. av. mol. wt. 5000-100,000, useful as polymeric dispersant in aq. systems particularly, in exterior water-borne coatings for automobiles and trucks, comprises a hydrophobic polymeric backbone and discrete anionic and nonionic hydrophilic side chains attached to the backbone. Thus, an aq. pigment dispersant contg. an acrylic graft copolymer prepd. from Bu acrylate, acrylic acid, Me acrylate, Bu methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-Me methacrylate macromonomer, poly(ethylene glycol) monomethacrylate and aminomethyl propanol 2.00 and R 706 (TiO2) 75.00% showed Brookfield viscosity (100 rpm) 1080 cps and drawdown gloss (20.degree.) 93. acrylic graft copolymer pigment dispersant coating ST ΙT Crosslinking agents Dispersing agents Pigments, nonbiological (acrylic graft copolymer having mixed anionic and nonionic side chains as pigment dispersants for water-thinned coatings) IT Polyesters, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (acrylic graft copolymer having mixed anionic and nonionic side chains as pigment dispersants for water-thinned coatings) IT Aminoplasts RL: MOA (Modifier or additive use); USES (Uses) (curing agent; acrylic graft copolymer having mixed anionic and nonionic side chains as pigment dispersants for water-thinned coatings) IT Coating materials (water-thinned; acrylic graft copolymer having mixed anionic and nonionic side chains as pigment dispersants for water-thinned coatings) 13463-67-7, Ti-Pure R 706, uses IT RL: MOA (Modifier or additive use); USES (Uses) (acrylic graft copolymer having mixed anionic and nonionic side chains as pigment dispersants for water-thinned coatings) IT 158765-80-1 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (acrylic graft copolymer having mixed anionic and nonionic side chains as pigment dispersants for water-thinned coatings)

80501-08-2, Allyl methacrylate-butyl acrylate-2-hydroxyethyl

IT

acrylate-methacrylic acid-methyl methacrylate copolymer RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(coating compn. contg.; acrylic graft copolymer having mixed anionic and nonionic side chains as pigment dispersants for water-thinned coatings)

9003-08-1, Cymel 301 IT

RL: MOA (Modifier or additive use); USES (Uses) (curing agent; acrylic graft copolymer having mixed anionic and nonionic side chains as pigment dispersants for water-thinned coatings)

IT 412031-44-8P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(dispersant; acrylic graft copolymer having mixed anionic and nonionic side chains as pigment dispersants for water-thinned coatings)

80501-08-2, Allyl methacrylate-butyl acrylate-2-hydroxyethyl ΙT acrylate-methacrylic acid-methyl methacrylate copolymer RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(coating compn. contg.; acrylic graft copolymer having mixed anionic and nonionic side chains as pigment dispersants for water-thinned coatings)

80501-08-2 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, CN 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-propenyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} & \text{O} \\ || \\ \text{HO-CH}_2\text{--CH}_2\text{--O-C-CH} \end{array} \text{CH}_2$$

CM 2

CRN 141-32-2 CMF C7 H12 O2

CM 3

CRN 96-05-9 CMF C7 H10 O2

$$^{\text{H}_2\text{C}}_{\parallel}$$
  $^{\text{O}}_{\parallel}$   $^{\text{Me}-\text{C}-\text{C}-\text{C}-\text{O}-\text{CH}_2-\text{CH}==}$   $^{\text{CH}_2}$ 

CRN 80-62-6 C5 H8 O2 CMF

$$\begin{array}{c|c} {\rm H_2C} & {\rm O} \\ & || & || \\ {\rm Me^-\,C^-\,C^-\,OMe} \end{array}$$

CM 5

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

## 412031-44-8P IT

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(dispersant; acrylic graft copolymer having mixed anionic and nonionic side chains as pigment dispersants for water-thinned coatings)

412031-44-8 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, CN butyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.hydroxypoly(oxy-1,2-ethanediyl), methyl 2-propenoate and 2-propenoic acid, graft, compd. with 2-amino-2-methyl-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 124-68-5 CMF C4 H11 N O

2 CM

412031-43-7 CRN

SHOSHO 09/869549 Page 69 11/08/2002

CMF (C8 H14 O2 . C7 H12 O2 . C6 H10 O3 . C5 H8 O2 . C4 H6 O2 . C4 H6 O2 . C3 H4 O2 . (C2 H4 O)n C4 H6 O2)x

CCI PMS

CM 3

CRN 25736-86-1

(C2 H4 O)n C4 H6 O2 CMF

CCI PMS

$$\begin{array}{c|c} {\rm H_2C} & {\rm O} \\ \parallel & \parallel \\ {\rm Me-C-C} & {\rm C-CH_2-CH_2- OH} \end{array} \\ {\rm OH} \\$$

CM 4

CRN 868-77-9 CMF C6 H10 O3

CM 5

CRN 141-32-2 CMF C7 H12 O2

$${\displaystyle \mathop{\parallel}_{n\text{-BuO-C-CH}}^{O}}$$

6 CM

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 7

CRN 96-33-3 CMF C4 H6 O2

CRN 80-62-6 CMF C5 H8 O2

CM

CRN 79-41-4 CMF C4 H6 O2

10 CM

79-10-7 CRN CMF C3 H4 O2

ANSWER 11 OF 55 HCAPLUS COPYRIGHT 2002 ACS L23

2002:130886 HCAPLUS AN

DN 137:95229

TI Design of new pigment dispersants by controlled radical polymerization

Auschra, Clemens; Eckstein, Ernst; Muhlebach, Andreas; Zink, Marie-Odile; ΑU Rimo, Francois

Additives Division, Ciba Specialty Chemicals, Basel, CH-4002, Switz. CS

Athens Conference on Coatings: Science and Technology, Proceedings, 27th, SO Athens, Greece, July 2-6, 2001 (2001), 33-47 Publisher: Institute of Materials Science, New Paltz, N. Y. CODEN: 69CGM9

DTConference

LA English

42-5 (Coatings, Inks, and Related Products) CC

Polymeric pigment dispersants are essential for the formulation AΒ of high solids and waterborne coatings. New technologies for controlled polymn. play an important role for the development of improved

pigment dispersants. In the last years big progress has been made
esp. on nitroxide-mediated controlled free radical polymn., as well as on
atom transfer radical polymn. (ATRP)

). Both techniques overcome limitations of classical polymn. methods and provide an efficient route to functional copolymers with exact control of mol. wt. distribution and mol. architecture. New developed nitroxide polymn. regulators as well as ATRP were used for the synthesis of acrylic block copolymers, which are a promising class of dispersants, esp. for difficult to disperse org. pigments. On the example of selected pigments, it was investigated how structural parameters like chem. compn., block length and mol. wt. influence the dispersant performance. Special attention will be given to the rheol. behavior of pigment concs.

ST radical polymn polymeric pigment dispersant waterborne coating

IT Dispersing agents

Pigments, nonbiological
Polymerization catalysts

(prepn. of new polymeric **pigment** dispersants in waterborne coatings by controlled radical polymn.)

IT Polymerization

(radical; prepn. of new polymeric pigment dispersants in waterborne coatings by controlled radical polymn.)

IT Coating materials

(water-thinned; prepn. of new polymeric **pigment** dispersants in waterborne coatings by controlled radical polymn.)

IT 281198-01-4P, Butyl acrylate-dimethylaminoethyl acrylate block
 copolymer

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dispersants; prepn. of new polymeric **pigment** dispersants in waterborne coatings by controlled radical polymn.)

IT 264279-94-9

RL: CAT (Catalyst use); USES (Uses)

(polymn. catalyst; prepn. of new polymeric pigment

dispersants in waterborne coatings by controlled radical polymn.)

IT 7440-50-8D, Copper, compds.

RL: CAT (Catalyst use); USES (Uses)

(prepn. of new polymeric **pigment** dispersants in waterborne coatings by controlled radical polymn.)

IT 84632-65-5P, C.I. Pigment Red 254

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. of new polymeric **pigment** dispersants in waterborne coatings by controlled radical polymn.)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

- (1) Auschra, C; WO 0040630 2000 HCAPLUS
- (2) Jakubauskas, H; J Coat Techn 1986, V58(736), P71 HCAPLUS
- (3) Kramer, A; GB 2335190 2000 HCAPLUS
- (4) Matyaszewski, K; US 5763548 1998 HCAPLUS
- (5) Nesvadba, P; GB 2342649 2000 HCAPLUS
- (6) Patton, T; Paint Flow and Pigment Dispersion 1979
- (7) Schofield, J; Handbook of Coating Additives 1992, V2, P71 HCAPLUS
- (8) Sogah, D; Macromolecules 1987, V20, P1473 HCAPLUS
- (9) Solomon, D; US 4581429 1986 HCAPLUS
- (10) van den Haak, H; J Coat Techn 1997, V69(873), P137 HCAPLUS
- (11) Wu, D; Polymer Paint & Colour J 1991, V181, P532 HCAPLUS
- (12) Zink, M; Macromolecules 2000, V33, P8106 HCAPLUS
- IT 281198-01-4P, Butyl acrylate-dimethylaminoethyl acrylate block copolymer

Page 72 11/08/2002 09/869549 SHOSHO

> RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dispersants; prepn. of new polymeric pigment dispersants in waterborne coatings by controlled radical polymn.)

281198-01-4 HCAPLUS RN

2-Propenoic acid, butyl ester, polymer with 2-(dimethylamino)ethyl CN 2-propenoate, block (9CI) (CA INDEX NAME)

CM

CRN 2439-35-2 CMF C7 H13 N O2

$$\begin{array}{c} \text{O} \\ || \\ \text{Me}_{2}\text{N}-\text{CH}_{2}-\text{CH}_{2}-\text{O}-\text{C}-\text{CH} == \text{CH}_{2} \end{array}$$

CM

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH-----} \text{CH}_2 \end{array}$$

L23 ANSWER 12 OF 55 HCAPLUS COPYRIGHT 2002 ACS

2002:113244 HCAPLUS AN

DN 136:175456

Pigment-dispersing agent, pigment dispersion containing the agent, and TI colored photosensitive resin composition

Takahashi, Hidetomo; Yoshimura, Kosaku; Takeda, Akihiko Fuji Photo Film Co., Ltd., Japan IN

PA

Jpn. Kokai Tokkyo Koho, 21 pp. CODEN: JKXXAF

DT Patent

LA Japanese

ICM C09D017-00 IC

ICS C08F002-44; C08F002-50; C08F008-00; C08F290-04; C08F291-00; G02B005-20; G03F007-004; G03F007-038

74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other CC Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

PΙ

KIND DATE APPLICATION NO. DATE DATE PATENT NO. \_\_\_\_\_ JP 2002047441 A2 20020212 JP 2000-236038 20000803

The dispersing agent contains a graft copolymer involving a N-contg. AB repeating unit in the backbone and another repeating unit having .gtoreq.1 functional group selected from amide and acidic group on the grafted segments. The dispersion consists of a pigment, the dispersing agent, and an org. solvent. The colored photosensitive compn. contains the above pigment dispersion, a polyfunctional monomer contg. .gtoreq.2 ethylenic unsatd. groups, and a photopolymn. initiator optionally assocd.

with an acidic binder polymer. The photosensitive compn. showing good alkali-developing property is suitable for color filter in liq. crystal display device, etc.

ST pigment dispersing agent graft copolymer; amide acidic group segment grafted polymer; nitrogen repeating unit backbone graft copolymer; alkali developing property photosensitive pigment compn; color filter photolithog compn pigment dispersion

IT Polymers, uses

RL: TEM (Technical or engineered material use); USES (Uses) (graft; pigment-dispersing agent contg. graft copolymer for colored photosensitive resin compn.)

IT Solvents

(org.; pigment-dispersing agent contg. graft copolymer for dispersion contg.)

IT Polymerization catalysts

(photopolymn.; pigment-dispersing agent contg. graft copolymer for colored photosensitive resin **compn**. contg.)

IT Disperse systems

Dispersing agents

Photolithography

Pigments, nonbiological

(pigment-dispersing agent contg. graft copolymer for colored photosensitive resin **compn.**)

IT Optical filters

(pigment-dispersing agent contg. graft copolymer for colored photosensitive resin **compn**. for)

IT 65697-21-4, Benzyl methacrylate-methacrylic acid copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(binder; pigment-dispersing agent contg. graft copolymer for colored photosensitive resin compn.)

IT 122108-19-4

RL: CAT (Catalyst use); USES (Uses)

(photopolymn. initiator; pigment-dispersing agent contg. graft copolymer for colored photosensitive resin compn. contg.)

IT **396764-81-1P 396764-86-6P** 396764-91-3P 396764-95-7P 396765-01-8P **396765-08-5P** 

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pigment-dispersing agent contg. graft copolymer for colored photosensitive resin compn.)

IT 147-14-8, C.I. Pigment Blue 15:6 14302-13-7, C.I. Pigment Green 36 29570-58-9, Dipentaerythritol hexaacrylate 30125-47-4, C.I. Pigment Yellow 138 84632-65-5, C.I. Pigment Red 254

RL: TEM (Technical or engineered material use); USES (Uses) (pigment-dispersing agent contg. graft copolymer for colored photosensitive resin compn.)

IT 108-65-6, 1-Methoxy-2-propyl acetate

RL: NUU (Other use, unclassified); USES (Uses)
(solvent; pigment-dispersing agent contg. graft copolymer for dispersion contg.)

IT 396764-81-1P 396764-86-6P 396765-08-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pigment-dispersing agent contg. graft copolymer for colored photosensitive resin compn.)

RN 396764-81-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methoxymethyl ester, polymer with N-[3-(dimethylamino)propyl]-2-propenamide and methyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CRN 20363-82-0 CMF C6 H10 O3

$$\begin{array}{c|c} ^{\rm H_2C} & {\rm O} \\ & || & || \\ ^{\rm Me-} & {\rm C-C-O-CH_2-OMe} \end{array}$$

CM 2

CRN 3845-76-9 CMF C8 H16 N2 O

$$\begin{array}{c} & \text{O} \\ || \\ \text{Me}_2 \text{N- (CH}_2)_3 - \text{NH- C- CH} \end{array}$$

CM 3

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{ccc} ^{H_2C} & \text{O} \\ & \parallel & \parallel \\ \text{Me-} & \text{C--} & \text{C--} & \text{OMe} \end{array}$$

RN 396764-86-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with N-[3-(dimethylamino)propyl]-2-propenamide and methyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 3845-76-9 CMF C8 H16 N2 O

CM 2

CRN 868-77-9 CMF C6 H10 O3

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & o \\ \parallel & \parallel \\ \text{Me-} & \text{C--} \text{C--} \text{OMe} \end{array}$$

RN 396765-08-5 HCAPLUS

2-Propenoic acid, 2-methyl-, methyl ester, polymer with N-[3-(dimethylamino)propyl]-2-propenamide and 4-(1-oxo-2-CN propenyl)morpholine, graft (9CI) (CA INDEX NAME)

CM1

CRN 5117-12-4 CMF C7 H11 N O2

CM 2

CRN 3845-76-9 CMF C8 H16 N2 O

$$\begin{array}{c} \text{O} \\ || \\ \text{Me}_{2} \text{N- (CH}_{2})_{3} - \text{NH- C- CH} \end{array}$$

CM 3

CRN 80-62-6 CMF C5 H8 O2

```
H<sub>2</sub>C O
|| ||
Me-C-C-OMe
```

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ANSWER 13 OF 55 HCAPLUS COPYRIGHT 2002 ACS
AN
     2001:798768 HCAPLUS
DN
     135:332667
TΙ
     Waterborne paper or paperboard coating composition with high
     Bobsein, Barrett Richard; Finch, William Christopher; Gleeson, David
IN
     Albert
PA
     USA
SO
     U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S. Provisional Ser. No.
     193,305.
     CODEN: USXXCO
DT
     Patent
LA
     English
IC
     C08K003-26; C08L053-00; C04B002-00
NCL
     524425000
     43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
     Section cross-reference(s): 42
FAN.CNT 2
     PATENT NO.
                      KIND DATE
                                          APPLICATION NO.
                                                            DATE
                     ____
                           -----
PΙ
     US 2001036990
                     A1
                            20011101
                                           US 2001-774064
                                                            20010131
     CA 2340862
                      AΑ
                            20010930
                                           CA 2001-2340862 20010315
     EP 1138825
                      A1
                            20011004
                                           EP 2001-302462
                                                            20010316
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     CN 1319629
                      Α
                            20011031
                                           CN 2001-111857
                                                            20010322
     BR 2001001243
                      Α
                            20011106
                                          BR 2001-1243
                                                            20010329
     JP 2001323223
                      A2
                            20011122
                                           JP 2001-99752
                                                            20010330
PRAI US 2000-193305P
                     P
                            20000330
     US 2001-774064
                      Α
                            20010131
     A waterborne pigmented paper or paperboard coating compn.
AΒ
     contains 50-100% Ca carbonate and 1-25% aq. polymeric dispersion including
     (a) 25-95 parts first emulsion polymer having an av. particle diam.
     150-3000 nm and (b) 5-75 parts second emulsion polymer having an av.
    particle diam. 40-600 nm, where the ratio of the av. particle diam. of the
     first emulsion polymer to the av. particle diam. of the second emulsion
    polymer is 1.2-60, where at least the first emulsion polymer particles,
     when dry, contain .gtoreq.1 void, and where the first emulsion polymer is
    prepd. in the presence of the second emulsion polymer or the second
     emulsion polymer is prepd. in the presence of the first emulsion polymer.
ST
     dispersion coating calcium carbonate emulsion binder; paper paperboard
     glossy dispersion coating; styrene acrylic polymer emulsion coating paper
IT
     Polymerization
        (emulsion; waterborne pigmented paper or paperboard coating
       compn.)
IT
    Coating materials
        (water-thinned; waterborne coating compn.)
ΙT
    Paperboard
        (waterborne coating compn.)
ΙT
    9010-92-8P, Methacrylic acid-styrene copolymer
                                                     25085-34-1P, Acrylic
    acid-styrene copolymer 108313-05-9P, Methacrylic acid-methyl
```

methacrylate-styrene graft copolymer 133481-55-7P, Acrylic

acid-methacrylic acid-styrene graft copolymer 174898-26-1P, Acrylic acid-methacrylic acid-methyl methacrylate-styrene graft copolymer 359869-03-7P, Acrylamide-butyl acrylate-divinylbenzene-methacrylic acid-methyl acrylate-methyl methacrylate-styrene graft copolymer RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(waterborne pigmented paper or paperboard coating compn.)

IT 471-34-1, Hydrocarb HG, uses

RL: MOA (Modifier or additive use); USES (Uses)

(waterborne pigmented paper or paperboard coating compn.) IT 359869-03-7P, Acrylamide-butyl acrylate-divinylbenzene-methacrylic acid-methyl acrylate-methyl methacrylate-styrene graft copolymer RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES

> (waterborne pigmented paper or paperboard coating compn.)

359869-03-7 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, diethenylbenzene, ethenylbenzene, methyl 2-methyl-2-propenoate, methyl 2-propenoate and 2-propenamide, graft (9CI) (CA INDEX NAME)

CM 1

CN

CRN 1321-74-0 C10 H10 CMF CCI IDS



CM 2

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH----} \text{CH}_{2} \end{array}$$

CM 3

CRN 100-42-5 CMF C8 H8

CRN 96-33-3 CMF C4 H6 O2

CM 5

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & o \\ \parallel & \parallel \\ \text{Me-} & \text{C--} \text{C--} \text{OMe} \end{array}$$

CM 6

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 7

CRN 79-06-1 CMF C3 H5 N O

$$^{\rm O}_{||}_{\rm H_2N-C-CH} = _{\rm CH_2}$$

L23 ANSWER 14 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:760058 HCAPLUS

DN 135:305337

Process for the preparation of pigment dispersion, pigment dispersion obtained by the same, ink jet recording ink comprising the same, and recording method and recording material using the same

IN Ota, Hitoshi; Komatsu, Hidehiko; Hara, Kazuhiko; Yatake, Masahiro

Seiko Epson Corporation, Japan

SO Eur. Pat. Appl., 55 pp.

CODEN: EPXXDW

DT Patent

LA English

IC

ICM C09C001-56 ICS C09B067-04; C09B067-20; C09D011-00

CC 42-12 (Coatings, Inks, and Related Products)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE ---- ----PΙ EP 1146090 A2 20011017 EP 2001-108962 20010410 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO JP 2002020673 A2 20020123 JP 2001-108788 20010406

PRAI JP 2000-108359 Α 20000410

JP 2001-108788 Α 20010406

MARPAT 135:305337 os

AΒ Provided is a process for the prepn. of a pigment dispersion which comprises a pigment surface treatment step of introducing at least one hydrophilic dispersibility-providing group onto the surface of a pigment directly and/or with the interposition of a polyvalent group, and a dispersion step of dispersing a surface-treated pigment obtained at the surface treatment step in an aq. medium, characterized in that the dispersion step involves the dispersion of the surface-treated pigment in admixt. with a wetting agent and water and a resin for providing dispersibility and/or fixability is added during and/or after the dispersion step. Thus, a black ink prepd. from a dispersion comprising surface-treated carbon black pigment 8.0, Joncryl 679 8.0, Surfynol 465 1.0, triethylene glycol monobutyl ether 10.0, glycerin 15.0, 1,5-pentanediol 2.5, triethanolamine 3.0, and water to 100% gave good storage stability and good printing quality, compared to poor storage stability and poor printing quality for a similar compn. without the polymer (Joncryl 679).

ST ink jet recording pigment polymer dispersion compn

IT Polysiloxanes, uses

> RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(di-Me, ethoxylated propoxylated; process for prepn. of pigment dispersion, pigment dispersion obtained by same, ink jet recording ink comprising same, and recording method and recording material using same)

ΙT Inks

> (jet-printing; process for prepn. of pigment dispersion, pigment dispersion obtained by same, ink jet recording ink comprising same, and recording method and recording material using same)

IT Ink-jet printing

Pigments, nonbiological

Wetting agents

(process for prepn. of pigment dispersion, pigment dispersion obtained by same, ink jet recording ink comprising same, and recording method and recording material using same)

ΙT Glycols, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(wetting agent; process for prepn. of pigment dispersion, pigment dispersion obtained by same, ink jet recording ink comprising same, and recording method and recording material using same)

IT25085-34-1, Joneryl 679

RL: MOA (Modifier or additive use); TEM (Technical or engineered material

use); USES (Uses)

(Joncryl 682, Joncryl 68, Joncryl 550, Joncryl 586, Joncryl B-36; process for prepn. of pigment dispersion, pigment dispersion obtained by same, ink jet recording ink comprising same, and recording method and recording material using same)

ΙT 195000-28-3P 367276-67-3P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(process for prepn. of pigment dispersion, pigment dispersion obtained by same, ink jet recording ink comprising same, and recording method and recording material using same)

113177-31-4, Joncryl 680 161279-62-5, Joncryl 683 IT

Page 80

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(process for prepn. of pigment dispersion, pigment dispersion obtained by same, ink jet recording ink comprising same, and recording method and recording material using same)

IT 56-81-5, Glycerin, uses 102-71-6, Triethanolamine, uses 1,5-Pentanediol 143-22-6, Triethylene glycol monobutyl ether 16005-17-7, Acetylene glycol

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(wetting agent; process for prepn. of pigment dispersion, pigment dispersion obtained by same, ink jet recording ink comprising same, and recording method and recording material using same)

IT 195000-28-3P 367276-67-3P

> RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(process for prepn. of pigment dispersion, pigment dispersion obtained by same, ink jet recording ink comprising same, and recording method and recording material using same)

RN195000-28-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with .alpha.-[dimethy1[3-[(2-methy1-1-oxo-2-propeny1)oxy]propy1]si1y1]-.omega.-[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], .alpha.-(2-methyl-1-oxo-methylsilyl)oxy]poly[oxy(dimethylsilylene)], .alpha.-(2-methyl-1-oxo-methylsilyl)oxy]poly[oxy(dimethylsilylene)], .alpha.-(2-methyl-1-oxo-methylsilyl)oxy]poly[oxy(dimethylsilylene)], .alpha.-(2-methyl-1-oxo-methylsilyl)oxy]poly[oxy(dimethylsilylene)], .alpha.-(2-methyl-1-oxo-methylsilylene)], .alpha.-(2-methylsilylene)], .alpha.-(2-methyls2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and 2-propenoic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 123109-42-2 CMF (C2 H6 O Si)n C12 H26 O3 Si2 CCI PMS

CM 2

CRN 25736-86-1

CMF (C2 H4 O)n C4 H6 O2

CCI PMS

$$\begin{array}{c|c} H_2C & O \\ \parallel & \parallel & \parallel \\ Me-C-C & -C & -CH_2-CH_2 & -D \\ \end{array}$$

CRN 585-07-9 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{t-BuO-C-C-Me} \end{array}$$

CM 4

CRN 79-10-7 CMF C3 H4 O2

RN 367276-67-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl), phenylmethyl 2-methyl-2-propenoate and N-(1,1,3,3-tetramethylbutyl)-2-propenamide, graft (9CI) (CA INDEX NAME)

CM 1

CRN 25736-86-1

CMF (C2 H4 O)n C4 H6 O2

CCI PMS

$$\begin{array}{c|c} {\rm H_2C} & {\rm O} \\ \parallel & \parallel & \parallel \\ {\rm Me-C-C} & {\rm C-CH_2-CH_2-J_n} \end{array} {\rm OH}$$

CM 2

CRN 4223-03-4 CMF C11 H21 N O

CRN 2495-37-6 CMF C11 H12 O2

$$\begin{array}{c|c} ^{H2C} & \text{O} \\ & \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{O-} & \text{CH}_2 \text{--} & \text{Ph} \end{array}$$

CM 4

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

L23 ANSWER 15 OF 55 HCAPLUS COPYRIGHT 2002 ACS AN 2001:526119 HCAPLUS

DN 135:123953

Comb polymers prepared from ATRP macromonomers ΤI

Muehlebach, Andreas; Rime, Francois; Auschra, Clemens; Eckstein, Ernst ΙN

Ciba Specialty Chemicals Holding Inc., Switz. PA

PCT Int. Appl., 58 pp. SO

CODEN: PIXXD2

DTPatent

LA English

IC

ICM C08F293-00 ICS C08L053-00; C08L051-00; C08F002-38; C08F004-40; C09D011-00

42-12 (Coatings, Inks, and Related Products) CC

Section cross-reference(s): 35

FAN. CNT 1

PAN.	-IN I	1																	
	PATENT NO.				KIND DATE				APPLICATION NO.						DATE				
ΡI	WO 2001051534				A1 200107			0719	WO 2001-EP53					:	20010104				
		W:	ΑE,	ΑG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
			CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	
			HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	
			LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	ΝZ,	PL,	PT,	RO,	RU,	
			SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	ŪG,	US,	UZ,	VN,	
			YU,	ZA,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	TJ,	TM					
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,	

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

A1 20021106 EP 2001-909579 20010104

AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRAI EP 2000-810023 20000111 WO 2001-EP53 20010104 W

Comb polymers and macromonomers based on acrylates prepd. by the AB ATRP (Atom Transfer Radical Polymn.) method having improved capability of dispersing pigments in the

qiven solvent can be used in compns. comprising the comb polymers and macromonomers dispersible inorg. or org. pigment particles such as inks, coating materials and be applied to any suitable substrate, such as metal, wood plastic or ceramic materials. Thus, 5% comb polymer having improved dispersant performance (formed by the copolymn. of macromer acryloyl terminated poly(Bu acrylate) and methyacrylic acid) in a alkyd/melamine based coating system can improve gloss in the final coating and give improved rheol. of the millbase.

ST comb polymer macromonomer polyacrylate; atom transfer

radical polymn; butyl acrylate methyacrylic acid graft copolymer

IT Polvmerization

> (atom transfer, radical; comb polymers prepd. from ATRP macromonomers)

TΤ Coating materials

Dispersing agents

Inks

Polymerization catalysts

(comb polymers prepd. from ATRP macromonomers)

IT Alkyd resins

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(comb polymers prepd. from ATRP macromonomers)

IT

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (comb polymers prepd. from ATRP macromonomers)

IT Acrylic polymers, uses

Aminoplasts

Epoxy resins, uses

Polyesters, uses

Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(comb polymers prepd. from ATRP macromonomers)

IT Polymers, uses

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (comb; comb polymers prepd. from ATRP macromonomers)

IT Acrylic polymers, uses

RL: TEM (Technical or engineered material use); USES (Uses) (styrene-contg.; comb polymers prepd. from ATRP

macromonomers)

3030-47-5, PMDETA IT 366-18-7, 2,2'-Bipyridyl 5445-17-0, 7787-70-4, Copper bromide (CuBr) 7789-45-9, Methyl-2-bromopropionate 17639-93-9, Methyl-2-chloropropionate 33527-91-2 Copper(II) bromide RL: CAT (Catalyst use); USES (Uses)

(comb polymers prepd. from ATRP macromonomers)

26793-34-0DP, Poly(N,N-dimethyl acrylamide), methacryloyl terminated IT RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(comb polymers prepd. from ATRP macromonomers)

ΙT 9003-49-0DP, Butyl acrylate homopolymer, (meth)acryloyl or Br terminated

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350679-82-2P
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RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(comb polymers prepd. from ATRP macromonomers)

79-10-7DP, Acrylic acid, reaction products with polyacrylate 79-41-4DP, Methacrylic acid, reaction products with polyacrylate 1075-49-6DP, 4-Vinylbenzoic acid, reaction products with star-shaped polyacrylate 28574-59-6DP, Polydimethylaminoethyl acrylate, methacryloyl terminated 281198-01-4P 281198-05-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (comb polymers prepd. from ATRP macromonomers)

112718-86-2P, Acrylic acid-butyl-acrylate graft copolymer 116107-73-4P 150673-30-6P 350236-11-2P 350236-12-3P 350679-85-5P 350680-38-5P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (comb polymers prepd. from ATRP macromonomers)

1T 100-44-7, Benzylchloride, reactions 104-15-4, p-Toluene sulfonic acid, reactions 115-77-5, Pentaerythritol, reactions 563-76-8, 2-Bromopropionyl bromide 1860-26-0, Tris-2(-ethylhexylamine) 7758-89-6, Copper chloride (CuCl)

RL: RCT (Reactant); RACT (Reactant or reagent)
 (comb polymers prepd. from ATRP macromonomers)

IT 9002-86-2, Polyvinylchloride 9003-08-1, Maprenal MF 650 24937-78-8 84632-65-5, Irgazin DPP Red BO

RL: TEM (Technical or engineered material use); USES (Uses) (comb polymers prepd. from ATRP macromonomers)

IT 248603-09-0P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
 (coupling agent; comb polymers prepd. from ATRP
 macromonomers)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

- (1) Atochem Elf Sa; EP 0911350 A 1999 HCAPLUS
- (2) Atochem Elf Sa; WO 0011055 A 2000 HCAPLUS
- (3) Ciba Sc Holding Ag; WO 0040630 A 2000 HCAPLUS
- (4) Du Pont; EP 0218436 A 1987 HCAPLUS
- (5) Du Pont; WO 9903938 A 1999 HCAPLUS
- (6) Matyjaszewski, K; US 5789487 A 1998 HCAPLUS
- (7) Matyjaszewski, K; US 5807937 A 1998 HCAPLUS
- (8) Rime, F; WO 0018807 A 2000 HCAPLUS
- (9) Yu, S; US 5109075 A 1992 HCAPLUS

## IT 350679-82-2P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(comb polymers prepd. from ATRP macromonomers)

RN 350679-82-2 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with 2-(dimethylamino)ethyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2439-35-2 CMF C7 H13 N O2 Page 85

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{Me}_2 \text{N} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{CH} = \text{CH}_2 \end{array}$$

2 CM

141-32-2 CRN CMF C7 H12 O2

28574-59-6DP, Polydimethylaminoethyl acrylate, methacryloyl IT terminated 281198-01-4P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (comb polymers prepd. from ATRP macromonomers)

28574-59-6 HCAPLUS RN

2-Propenoic acid, 2-(dimethylamino)ethyl ester, homopolymer (9CI) (CA CN INDEX NAME)

CM 1

CRN 2439-35-2 CMF C7 H13 N O2

$$\begin{array}{c} & \text{O} \\ \parallel \\ \text{Me}_{2}\text{N}-\text{CH}_{2}-\text{CH}_{2}-\text{O}-\text{C}-\text{CH} \end{array}$$

281198-01-4 HCAPLUS RN

2-Propenoic acid, butyl ester, polymer with 2-(dimethylamino)ethyl CN 2-propenoate, block (9CI) (CA INDEX NAME)

CM

CRN 2439-35-2 CMF C7 H13 N O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{Me}_2 \text{N} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{CH} = \text{CH}_2 \end{array}$$

2 CM

CRN 141-32-2 CMF C7 H12 O2

350236-11-2P 350236-12-3P 350679-85-5P IT

350680-38-5P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (comb polymers prepd. from ATRP macromonomers)

350236-11-2 HCAPLUS RN

2-Propenoic acid, butyl ester, polymer with N,N-dimethyl-2-propenamide, CN graft (9CI) (CA INDEX NAME)

1 CM

CRN 2680-03-7 CMF C5 H9 N O

$$\begin{array}{c} \text{O} \\ || \\ \text{Me}_2 \text{N-C-CH----} \text{CH}_2 \end{array}$$

2 CM

CRN 141-32-2 CMF C7 H12 O2

$$\overset{\text{O}}{\underset{n-\text{BuO}-}{\parallel}}\text{C-C-CH----}\text{CH}_2$$

350236-12-3 HCAPLUS RN

2-Propenoic acid, butyl ester, polymer with 2-(dimethylamino)ethyl CN 2-propenoate and N, N-dimethyl-2-propenamide, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2680-03-7 CMF C5 H9 N O

$$\begin{array}{c} \text{O} \\ || \\ \text{Me}_2 \text{N-C-CH-} \text{CH}_2 \end{array}$$

2 CM

CRN 2439-35-2 CMF C7 H13 N O2 SHOSHO

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{Me}_2 \text{N} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{CH} = \text{CH}_2 \end{array}$$

CM 3

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \end{array} \text{CH}_2$$

RN 350679-85-5 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with 2-(dimethylamino)ethyl 2-propenoate, graft, compd. with (chloromethyl)benzene (9CI) (CA INDEX NAME)

CM 1

CRN 100-44-7 CMF C7 H7 C1

 $Ph-CH_2-Cl$ 

CM 2

CRN 350679-82-2

CMF (C7 H13 N O2 . C7 H12 O2) $\times$ 

CCI PMS

CM 3

CRN 2439-35-2 CMF C7 H13 N O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{Me}_2 \text{N-CH}_2 \text{--CH}_2 \text{--O-C-CH------} \text{CH}_2 \end{array}$$

CM 4

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} = \text{CH}_2 \end{array}$$

RN 350680-38-5 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with 2-(dimethylamino)ethyl 2-propenoate, graft, 4-methylbenzenesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 104-15-4 CMF C7 H8 O3 S

CM 2

CRN 350679-82-2

CMF (C7 H13 N O2 . C7 H12 O2) $\times$ 

CCI PMS

CM 3

CRN 2439-35-2 CMF C7 H13 N O2

CM 4

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \longrightarrow \text{CH}_2 \end{array}$$

L23 ANSWER 16 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:265527 HCAPLUS

DN 134:297230

TI Pigment dispersions containing abc-block polymer dispersant

IN Kraiter, Daniel C.; Rodriguez-Douglas, Beatriz E.

PA E.I. Du Pont De Nemours and Company, USA

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

SO PCT Int. Appl., 19 pp. CODEN: PIXXD2 DT Patent LA English IC ICM C09D153-00 42-6 (Coatings, Inks, and Related Products) CC FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_ PΙ WO 2001025357 A2 20010412 WO 2000-US27258 20001004 WO 2001025357 А3 20010607 W: AU, BR, CA, CN, IL, JP, KR, MX, NZ RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE US 6413306 В1 20020702 US 1999-414255 19991007 BR 2000014824 Α 20020611 BR 2000-14824 20001004 EP 1240255 A2 20020918 EP 2000-967285 20001004 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY PRAI US 1999-414255 Α 19991007 WO 2000-US27258 W 20001004 A pigment dispersion useful for forming coating compns. contg. dispersed pigment, a non-aq. carrier liq. and an ABC-block polymer dispersant (binder). The ABC block polymer has a no.-av. mol. wt. (Mn) of about 5000-20,000 and contains a polymeric A segment, a polymeric B segment and a polymeric C segment. The polymeric A segment is of polymd. monomers selected from C1-12 alkyl (meth)acrylate monomers, aryl (meth)acrylate monomers, cycloalkyl (meth)acrylate monomers or mixts. of any of the above. The polymeric B segment is of polymd. C1-4 alkylaminoalkyl (meth)acrylate monomers quaternized with an alkylating agent. The polymeric C segment is of polymd. monomers of C1-4 alkyl hydroxyalkyl (meth) acrylate and C1-12 alkyl (meth) acrylate monomers, aryl (meth)acrylate monomers or/and cycloalkyl (meth)acrylate monomers. The block polymer optionally contains polymd. monomers of glycidyl (meth)acrylate or polyalkylene glycol (meth)acrylate. The wt. ratio of pigment to binder in the dispersion is about 1/100-200/100. Thus, prepg. an ABC block copolymer having an A block derived from Bu methacrylate and Me methacrylate, a B block derived from dimethylaminoethyl methacrylate, and a C block derived from Bu methacrylate, Me methacrylate and 2-(trimethylsiloxy)ethyl methacrylate, and quaternizing the resulting block copolymer with benzyl chloride gave a dispersant for pigment dispersion prepn. ST dispersant binder acrylate ester triblock copolymer manuf IT Polymers, uses RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (block, dispersant/binder; pigment dispersions contg. triblock acrylate polymer dispersant or binder and use in coating) TΤ Binders Coating materials Dispersing agents Pigments, nonbiological (pigment dispersions contg. triblock acrylate polymer dispersant or binder and use in coating) ΙT Carbon black, uses RL: TEM (Technical or engineered material use); USES (Uses) (pigment; pigment dispersions contg. triblock acrylate polymer dispersant or binder and use in coating) ΙT 334474-03-2DP, desilylated product RL: IMF (Industrial manufacture); MOA (Modifier or additive

use); PRP (Properties); PREP (Preparation); USES (Uses) (dispersant/binder; pigment dispersions contg. triblock acrylate polymer dispersant or binder and use in coating) 147-14-8, Endurophthal Blue GF-BT 617D 1047-16-1, Monastral Red Y-RT IT 759D 1309-37-1, Iron oxide, uses 1328-53-6, Sunfast Green 7-264-0414 5521-31-3, Perrindo Maroon R 6436 13463-67-7, Titanium oxide, uses 53801-77-7, Bismuth vanadate 68134-22-5, Hostaperm Yellow H 3G

84632-65-5, Irgazin DPP Red BO RL: TEM (Technical or engineered material use); USES (Uses) (pigment; pigment dispersions contg. triblock acrylate polymer dispersant or binder and use in coating)

IT 334474-03-2DP, desilylated product

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (dispersant/binder; pigment dispersions contg. triblock acrylate polymer dispersant or binder and use in coating)

RN 334474-03-2 HCAPLUS CN

Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2propenyl)oxy]ethyl]-, chloride, polymer with butyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-[(trimethylsilyl)oxy]ethyl 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 46917-07-1 CMF C15 H22 N O2 . C1

C1-

CM 2

CRN 17407-09-9 CMF C9 H18 O3 Si

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{Me}_3 \text{Si} - \text{O} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

CM 3

CRN 97-88-1 CMF C8 H14 O2

CRN 80-62-6 C5 H8 O2 CMF

H<sub>2</sub>C O 11 Me-C-C-OMe

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L23 ANSWER 17 OF 55 HCAPLUS COPYRIGHT 2002 ACS
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2001:220296 HCAPLUS AN

134:267811 DN

Preparation of water-thinned pigment composition with good ΤI dispersity

Suzuki, Yoshiko; Chousokabe, Hiroshi; Uno, Minoru; Itabashi, Masashi IN

Toyo Ink Mfg. Co., Ltd., Japan PA

Jpn. Kokai Tokkyo Koho, 13 pp. SO CODEN: JKXXAF

DT Patent

Japanese LA

ICM C09D017-00 IC

ICS C08J003-03; C08J003-075; C08J003-20; C08L033-00; C09D005-00; C09D011-00; C09D133-00

42-10 (Coatings, Inks, and Related Products) CC

FAN.CNT 1

APPLICATION NO. DATE KIND DATE PATENT NO. \_\_\_\_\_ \_\_\_\_ 19990920

JP 1999-264731 20010327 JP 2001081390 A2 PT

Title process for prepn. of water-thinned pigment dispersion as good as AB oil-based one, comprises (A) kneading by a roller a compn. comprising pigments and a copolymer resin prepd. from two ethylene-type unsatd. monomers [contg. .gtoreq.1 (a) carboxylic and (b) hydroxyl group per mol., resp.] to obtain solid chips, and (B) dispersing the prepd. chips in aq. solvents to give the dispersion. Thus, 14. 1 parts of chips prepd. from C.I. Pigment Blue 15:1 10.0, 40% aq. acrylic acid-Bu acrylate-Et acrylate-2-hydroxyethyl methacrylate-styrene copolymer dimethylaminoethanol salt 6.0, ion-exchanged water 0.2, and Butyl Carbitol 0.2 part, were redispersed with dimethylaminoethanol 0.3, Butyl Carbitol 2.0, and ion-exchanged water 25.0 parts, 41.4 parts of which were mixed with 40% aq. Bu acrylate-Bu methacrylate-Et acrylate-4-hydroxybutyl acrylate copolymer dimethlaminoethanol salt 64.0, methylated melamine Cymel-303 12.2, and ion-exchanged water 7.4 parts to give a water-thinned paint.

water thinned acrylic polymer pigment dispersion ST

Dispersion (of materials) ITPigments, nonbiological

(prepn. of water-thinned pigment compn. with good dispersity)

Alkali metal compounds IT

Aminoplasts

RL: MOA (Modifier or additive use); USES (Uses)

```
(prepn. of water-thinned pigment compn. with good dispersity)
TΥ
     Paints
        (water-thinned; prepn. of water-thinned pigment compn. with
        good dispersity)
     183178-31-6P 204708-52-1P, Acrylic acid-butyl
IT
     acrylate-ethyl acrylate-2-hydroxyethyl methacrylate-styrene copolymer
     dimethylaminoethanol salt 331649-43-5P
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     PRP (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (prepn. of water-thinned pigment compn. with good
        dispersity)
     147-14-8, C.I. Pigment Blue 15:1
                                      1047-16-1, C.I. Pigment Violet 19
IT
     1047-16-1D, derivs. 4051-63-2, C.I. Pigment Red 177 9003-08-1,
                 14302-13-7, C.I. Pigment Green 36 23912-79-0D,
     Cymel-303
     5,7,12,14-Pentacenetetrone, derivs.
                                          84632-65-5, C.I. Pigment Red 254
     93971-95-0
                  331649-52-6
     RL: MOA (Modifier or additive use); USES (Uses)
        (prepn. of water-thinned pigment compn. with good dispersity)
     183178-31-6P 204708-52-1P, Acrylic acid-butyl
IT
     acrylate-ethyl acrylate-2-hydroxyethyl methacrylate-styrene copolymer
     dimethylaminoethanol salt 331649-43-5P
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     PRP (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (prepn. of water-thinned pigment compn. with good
        dispersity)
     183178-31-6 HCAPLUS
RN
     2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl
CN
     2-propenoate, ethenylbenzene, ethyl 2-propenoate, methyl
     2-methyl-2-propenoate and 2-propenoic acid, compd. with
     2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)
     CM
          1
     CRN 108-01-0
     CMF C4 H11 N O
{\tt Me2N-CH2-CH2-OH}
     CM
          2
     CRN
          56597-73-0
          (C8 H8 . C7 H12 O2 . C6 H10 O3 . C5 H8 O2 . C5 H8 O2 . C3 H4 O2)x
     CMF
     CCI
          PMS
```

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H<sub>2</sub>C O
|| ||
Me-C-C-O-CH<sub>2</sub>-CH<sub>2</sub>-OH
```

3

CRN 868-77-9 CMF C6 H10 O3

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \end{array} \text{CH}_2$$

CM

CRN 140-88-5 CMF C5 H8 O2

CM 6

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM

CRN 80-62-6 CMF C5 H8 O2

CM8

CRN 79-10-7 CMF C3 H4 O2

RN 204708-52-1 HCAPLUS CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl

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2-propenoate, ethenylbenzene, ethyl 2-propenoate and 2-propenoic acid, compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0 CMF C4 H11 N O

 $Me_2N-CH_2-CH_2-OH$ 

CM 2

CRN 55348-76-0

CMF (C8 H8 . C7 H12 O2 . C6 H10 O3 . C5 H8 O2 . C3 H4 O2) x

CCI PMS

CM 3

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 141-32-2 CMF C7 H12 O2

$$\overset{\text{O}}{\underset{\text{n-BuO-C-CH}}{\parallel}}\text{ch}_2$$

CM 5

CRN 140-88-5 CMF C5 H8 O2

CM 6

CRN 100-42-5 CMF C8 H8 Page 95

 $H_2C = CH - Ph$ 

CM

79-10-7 CRN CMF C3 H4 O2

0  $HO-C-CH=CH_2$ 

RN 331649-43-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, ethyl 2-propenoate and 4-hydroxybutyl 2-propenoate, compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0 CMF C4 H11 N O

 $Me_2N-CH_2-CH_2-OH$ 

CM 2

331649-42-4

(C8 H14 O2 . C7 H12 O3 . C7 H12 O2 . C5 H8 O2 . C4 H6 O2)x CMF

CCI PMS

> 3 CM

CRN 2478-10-6

CMF C7 H12 O3

 $HO-(CH_2)_4-O-C-CH=CH_2$ 

CM4

CRN 141-32-2 CMF C7 H12 O2

0  $n-BuO-C-CH=CH_2$ 

CRN 140-88-5 CMF C5 H8 O2

CM 6

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 7

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

L23 ANSWER 18 OF 55 HCAPLUS COPYRIGHT 2002 ACS

2001:101050 HCAPLUS

DN 134:164625

ΤI Recording method comprising printing recording medium with two liquid

IN Kubota, Kazuhide; Oyanagi, Takashi; Miyabayashi, Toshiyuki

PΑ Seiko Epson Corp., Japan

SQ PCT Int. Appl., 137 pp. CODEN: PIXXD2

DT Patent

LA Japanese

IC B41M005-00; B41J003-04; C09D011-00

42-12 (Coatings, Inks, and Related Products)

Section cross-reference(s): 73

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_ PΙ WO 2001008895 A1 20010208 WO 2000-JP5150 20000731 W: JP, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE EP 1125760 A1 20010822 EP 2000-949945 20000731 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

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Polyesters, uses

Polyurethanes, uses RL: TEM (Technical or engineered material use); USES (Uses) (ink contg.; prepn. and properties of printing ink compn. with two liq. components) IT Adhesion, physical Color Contact angle Optical transmission Particle size Printing (impact) Surface tension (prepn. and properties of printing ink compn. with two liq. components) IT Ceramics (printing medium; prepn. and properties of printing ink compn . with two liq. components) Metals, miscellaneous Plastics, miscellaneous Rubber, miscellaneous RL: MSC (Miscellaneous) (printing medium; prepn. and properties of printing ink compn . with two liq. components) IT Inks (printing; prepn. and properties of printing ink compn. with two liq. components) IT Plastics, uses RL: TEM (Technical or engineered material use); USES (Uses) (thermoplastics, ink contg.; prepn. and properties of printing ink compn. with two liq. components) IT 9014-85-1 RL: MOA (Modifier or additive use); USES (Uses) (Olfine E 1010, Surfynol 465, ink contg.; prepn. and properties of printing ink compn. with two liq. components) 147-14-8, C.I. Pigment blue 15:3 980-26-7, C.I. Pigment Red 122 6358-31-2, C.I. Pigment Yellow 74 13515-40-7, C.I. Pigment Yellow 73 IT RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (Pigment; prepn. and properties of printing ink compn. with two liq. components) 25085-34-1, Acrylic acid-styrene copolymer ΙT 35209-54-2, Acrylic acid-styrene copolymer ammonium salt RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (dispersing agent, ink contg.; prepn. and properties of printing ink compn. with two liq. components) IT 25155-30-0, Sodium dodecylbenzenesulfonate RL: NUU (Other use, unclassified); USES (Uses) (emulsifier, ink contg.; prepn. and properties of printing ink compn. with two liq. components) 151-21-3, Sodium laurylsulfate, uses ΙT RL: NUU (Other use, unclassified); USES (Uses) (emulsifier; prepn. and properties of printing ink compn. with two liq. components) ΙT 26636-08-8P, 2-Ethylhexyl acrylate-methacrylic acid-styrene copolymer 232935-02-3P, Acrylamide-acrylic acid-ADK Stab LA 82-butyl acrylate-RUVA 93-styrene copolymer ammonium salt 324575-78-2P 324575-80-6P 324575-82-8P 324575-89-5P, Butyl acrylate-2-hydroxyethyl acrylate-1,6-hexanediol dimethacrylate-methacrylic acid-styrene copolymer ammonium salt 324575-91-9P, Acrylamide-lauryl methacrylate-methacrylic acid-styrene copolymer ammonium

ΙT

IT

ΙT

IT

IT

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salt 324575-93-1P, Acrylamide-butyl acrylate-ethylene glycol
dimethacrylate-methacrylic acid-styrene copolymer ammonium salt
324575-95-3P 324575-97-5P, Acrylamide-butyl
acrylate-diethylene glycol dimethacrylate-methacrylic acid-styrene
copolymer ammonium salt 324575-98-6P, Acrylamide-butyl
acrylate-glycidyl methacrylate-methacrylic acid-styrene copolymer ammonium
       324576-00-3P, Butyl acrylate-methacrylic acid-styrene-
trifluoroethyl methacrylate copolymer ammonium salt 324576-03-6P
, Acrylamide-butyl acrylate-ethylene glycol dimethacrylate-
heptadecafluorodecyl methacrylate-methacrylic acid-styrene copolymer
ammonium salt 324576-06-9P, 2-Acryloylamino-2-
methylpropanesulfonic acid-butyl acrylate-diethylene glycol
dimethacrylate-2,2,3,4,4,4-hexafluorobutyl methacrylate-styrene copolymer
ammonium salt 324576-08-1P, Acrylamide-butyl
acrylate-methacrylic acid-styrene-2,2,3,3-tetrafluoropropyl methacrylate
copolymer ammonium salt 324576-10-5P, Acrylamide-butyl
acrylate-glycidyl methacrylate-methacrylic acid-perfluorooctylethyl
methacrylate-styrene copolymer ammonium salt 324576-13-8P,
Acrylamide-ethylene glycol dimethacrylate-methacrylic acid-methyl
methacrylate-styrene-trifluoroethyl methacrylate copolymer ammonium salt
324576-16-1P, Butyl acrylate-methacryloyldiacetylmethane-methacrylic
acid-styrene copolymer ammonium salt 324576-18-3P,
2-Acetoacetoxyethyl methacrylate-acrylamide-lauryl methacrylate-
methacrylic acid-styrene copolymer ammonium salt 324576-21-8P,
2-Acetoacetoxyethyl methacrylate-acrylamide-butyl acrylate-ethylene glycol
dimethacrylate-methacrylic acid-styrene copolymer ammonium salt
324576-24-1P 324576-27-4P, 2-Acetoacetoxyethyl
methacrylate-acrylamide-butyl acrylate-methacrylic acid-styrene copolymer
ammonium salt 324576-29-6P, Acrylamide-butyl acrylate-diethyl
methacryloylmalonate-glycidyl methacrylate-methacrylic acid-styrene
copolymer ammonium salt
RL: IMF (Industrial manufacture); POF (Polymer in formulation);
PRP (Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
   (emulsion, ink contg.; prepn. and properties of printing ink
   compn. with two liq. components)
16674-78-5, Magnesium acetate tetrahydrate
RL: MOA (Modifier or additive use); USES (Uses)
   (ink contg.; prepn. and properties of printing ink compn.
   with two liq. components)
13446-18-9, Magnesium nitrate hexahydrate
RL: MOA (Modifier or additive use); TEM (Technical or engineered material
use); USES (Uses)
   (ink contg.; prepn. and properties of printing ink compn.
   with two liq. components)
60-00-4, uses
               67-42-5
                          67-43-6 139-13-9
                                               142-73-4, Iminodiacetic
       150-39-0, N-Hydroxyethylethylenediamine triacetic acid
Cyclohexane-1,2-diamine tetraacetic acid 869-52-3, Triethylenetetramine
                 2466-09-3, Pyrophosphoric acid
hexaacetic acid
                                                  10380-08-2,
Triphosphoric acid
                    13311-39-2, Ethylenediamine tetrapropionic acid
RL: NUU (Other use, unclassified); USES (Uses)
   (ink contg.; prepn. and properties of printing ink compn.
   with two liq. components)
79-10-7D, Acrylic acid, fluoroalkyl esters, polymers
                                                       110507-15-8,
PAA-HCL 3L
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
   (ink contg.; prepn. and properties of printing ink compn.
   with two liq. components)
79-41-4D, Methacrylic acid, esters, polymers 97-65-4D, Itaconic acid,
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100-42-5D, Styrene, polymers with
     esters, polymers with styrene
                      9002-88-4, Polyethylene 9003-07-0, Polypropylene vinvl acetate) 9003-53-6, Polystyrene 9010-86-0, Ethyl
     (meth)acrylates
     9003-20-7, Poly(vinyl acetate)
     acrylate-ethylene copolymer
                                   24937-78-8, Ethylene-vinyl acetate copolymer
     25300-64-5, Maleic acid-styrene copolymer
     RL: TEM (Technical or engineered material use); USES (Uses)
        (ink contg.; prepn. and properties of printing ink compn.
        with two liq. components)
IT
     324575-83-9P
                    324575-84-0P
                                   324575-85-1P 324575-86-2P
                    324737-82-8P, Acrylonitrile-ethylene oxide graft copolymer,
     324575-87-3P
                       324737-84-0P, Butyl methacrylate-ethylene
     ammonim sulfate
     oxide-methacrylic acid-phenoxyethyl methacrylate graft copolymer ammonium
               324737-86-2P, Benzyl methacrylate-butyl methacrylate-
     dicyclopentanyl dimethacrylate-ethylene oxide-methacrylic acid graft
     copolymer ammonium sulfate 324737-88-4P, 2-Acrylamido-2-
     methylpropanesulfonic acid-acrylonitrile-benzyl methacrylate-butyl
     methacrylate-ethylene oxide graft copolymer ammonium sulfate
     324737-90-8P, Acrylonitrile-dibutyl fumarate-ethylene oxide graft
     copolymer ammonium sulfate
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     TEM (Technical or engineered material use); PREP (Preparation);
     USES (Uses)
        (pigment dispersion; prepn. and properties of printing ink
        compn. with two liq. components)
IT
     5580-57-4, C.I. Pigment Yellow 93
                                          76199-85-4, C.I. Pigment Yellow 185
     RL: MOA (Modifier or additive use); TEM (Technical or engineered material
     use); USES (Uses)
        (pigment; prepn. and properties of printing ink compn. with
        two liq. components)
                               58-86-6, Xylose, uses
IT
     56-81-5, Glycerin, uses
     1,3-Dimethyl-2-imidazolidinone
                                      111-46-6, Diethylene glycol, uses
     112-34-5, Diethylene glycol monobutyl ether 143-22-6, Triethylene glycol
     monobutvl ether
                       585-88-6, Maltitol
                                             616-45-5, 2-Pyrrolidone
     N-Methyl-2-pyrrolidone, uses
     RL: NUU (Other use, unclassified); USES (Uses)
        (solvent; prepn. and properties of printing ink compn. with
        two liq. components)
              THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
       31
(1) Canon Kabushiki Kaisha; JP 06299110 A HCAPLUS
(2) Canon Kabushiki Kaisha; CN 1116990 A
(3) Canon Kabushiki Kaisha; ES 2111802 T3 HCAPLUS
(4) Canon Kabushiki Kaisha; CA 2131424 A
(5) Canon Kabushiki Kaisha; US 5515093 A
(6) Canon Kabushiki Kaisha; US 5603756 A HCAPLUS
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(9) Canon Kabushiki Kaisha; DE 69407874 E
(10) Canon Kabushiki Kaisha; DE 69417086 E
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(14) Canon Kabushiki Kaisha; EP 620116 A2 1994 HCAPLUS
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(17) Hewlett-Packard Company; JP 05202328 A HCAPLUS
(18) Hewlett-Packard Company; EP 534634 A1 1993 HCAPLUS
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(20) Sanyo Chemical Industries Ltd; JP 05179577 A HCAPLUS (21) Sanyo Chemical Industries Ltd; CA 2115184 A HCAPLUS

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(22) Sanyo Chemical Industries Ltd; EP 631005 A1 1994 HCAPLUS
(23) Seiko Epson Corporation; JP 09207424 A HCAPLUS
(24) Seiko Epson Corporation; JP 1112519 A
(25) Seiko Epson Corporation; JP 11349875 A HCAPLUS
(26) Seiko Epson Corporation; US 6084619 A HCAPLUS
(27) Seiko Epson Corporation; EP 739743 A1 1996 HCAPLUS
(28) Seiko Epson Corporation; EP 875544 A1 1998 HCAPLUS
(29) Seiko Epson Corporation; JP 1129731 A 1999
(30) Seiko Epson Corporation; JP 1134478 A 1999
(31) Seiko Epson Corporation; EP 900831 A2 1999 HCAPLUS
     232935-02-3P, Acrylamide-acrylic acid-ADK Stab LA 82-butyl
     acrylate-RUVA 93-styrene copolymer ammonium salt 324575-78-2P
     324575-80-6P 324575-82-8P 324575-89-5P, Butyl
     acrylate-2-hydroxyethyl acrylate-1,6-hexanediol dimethacrylate-methacrylic
     acid-styrene copolymer ammonium salt 324575-91-9P,
     Acrylamide-lauryl methacrylate-methacrylic acid-styrene copolymer ammonium
     salt 324575-93-1P, Acrylamide-butyl acrylate-ethylene glycol
     dimethacrylate-methacrylic acid-styrene copolymer ammonium salt
     324575-95-3P 324575-97-5P, Acrylamide-butyl
     acrylate-diethylene glycol dimethacrylate-methacrylic acid-styrene
     copolymer ammonium salt 324575-98-6P, Acrylamide-butyl
     acrylate-glycidyl methacrylate-methacrylic acid-styrene copolymer ammonium
     salt 324576-03-6P, Acrylamide-butyl acrylate-ethylene glycol
     dimethacrylate-heptadecafluorodecyl methacrylate-methacrylic acid-styrene
     copolymer ammonium salt 324576-06-9P, 2-Acryloylamino-2-
     methylpropanesulfonic acid-butyl acrylate-diethylene glycol
     dimethacrylate-2,2,3,4,4,4-hexafluorobutyl methacrylate-styrene copolymer
     ammonium salt 324576-08-1P, Acrylamide-butyl
     acrylate-methacrylic acid-styrene-2,2,3,3-tetrafluoropropyl methacrylate
     copolymer ammonium salt 324576-10-5P, Acrylamide-butyl
     acrylate-glycidyl methacrylate-methacrylic acid-perfluorooctylethyl
     methacrylate-styrene copolymer ammonium salt 324576-13-8P,
     Acrylamide-ethylene glycol dimethacrylate-methacrylic acid-methyl
     methacrylate-styrene-trifluoroethyl methacrylate copolymer ammonium salt
     324576-18-3P, 2-Acetoacetoxyethyl methacrylate-acrylamide-lauryl
     methacrylate-methacrylic acid-styrene copolymer ammonium salt
     324576-21-8P, 2-Acetoacetoxyethyl methacrylate-acrylamide-butyl
     acrylate-ethylene glycol dimethacrylate-methacrylic acid-styrene copolymer
     ammonium salt 324576-24-1P 324576-27-4P,
     2-Acetoacetoxyethyl methacrylate-acrylamide-butyl acrylate-methacrylic
     acid-styrene copolymer ammonium salt 324576-29-6P,
     Acrylamide-butyl acrylate-diethyl methacryloylmalonate-glycidyl
     methacrylate-methacrylic acid-styrene copolymer ammonium salt
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     PRP (Properties); TEM (Technical or engineered material use); PREP
      (Preparation); USES (Uses)
         (emulsion, ink contg.; prepn. and properties of printing ink
        compn. with two liq. components)
      232935-02-3 HCAPLUS
RN
      2-Propenoic acid, 2-methyl-, 2-[3-(2H-benzotriazol-2-yl)-4-
CN
     hydroxyphenyl]ethyl ester, polymer with butyl 2-propenoate,
      ethenylbenzene, 1,2,2,6,6-pentamethyl-4-piperidinyl 2-methyl-2-propenoate,
      2-propenamide and 2-propenoic acid, ammonium salt (9CI) (CA INDEX NAME)
      CM.
           215377-65-4
      CRN
           (C18 H17 N3 O3 . C14 H25 N O2 . C8 H8 . C7 H12 O2 . C3 H5 N O . C3 H4
           02)x
      CCI
          PMS
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CRN 96478-09-0 CMF C18 H17 N3 O3

OH OH O CH2 
$$\mathbb{R}^{N}$$
 O CH2  $\mathbb{R}^{N}$   $\mathbb{R}^{N}$ 

CM

68548-08-3 CRN C14 H25 N O2 CMF

CM

141-32-2 CRN CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \end{array}$$

CM5

CRN 100-42-5 CMF C8 H8

 $_{\rm H_2C} = _{\rm CH-Ph}$ 

CM6

CRN 79-10-7 CMF C3 H4 O2  $HO-C-CH=CH_2$ 

7 CM

79-06-1 CRN CMF C3 H5 N O

0 - CH== CH2 H2N-C-

2-Propenoic acid, 2-methyl-, polymer with 2-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl]ethyl 2-methyl-2-propenoate, butyl 2-propenoate, RN CN ethenylbenzene, oxiranylmethyl 2-methyl-2-propenoate, 1,2,2,6,6pentamethyl-4-piperidinyl 2-methyl-2-propenoate and 2-propenamide, ammonium salt (9CI) (CA INDEX NAME)

CM 1

(C18 H17 N3 O3 . C14 H25 N O2 . C8 H8 . C7 H12 O2 . C7 H10 O3 . C4 H6 324575-77-1 CRN CMF O2 . C3 H5 N O) x

**PMS** CCI

> 2 CM

96478-09-0 CRN CMF C18 H17 N3 O3

$$\begin{array}{c|c} \text{OH} & \text{OCH}_2 \\ \hline \\ \text{CH}_2\text{--}\text{CH}_2\text{--}\text{O--}\text{C--}\text{C--}\text{Me} \end{array}$$

3 CM

68548-08-3 CRN C14 H25 N O2 CMF

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH------} \text{CH}_2 \end{array}$$

CM

CRN 106-91-2 CMF C7 H10 O3

$$\overset{\text{O}}{ } \quad \overset{\text{O}}{ } \quad \overset{\text{CH}_2}{ } \quad \overset{\text{O}}{ } \quad \overset{\text{CH}_2}{ } \quad \overset{\text{C$$

CM

CRN 100-42-5 CMF C8 H8

$${\tt H_2C} = {\tt CH-Ph}$$

7 CM

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 8

CRN 79-06-1

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RN 324575-80-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 2-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl]ethyl 2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene, 1,2,2,6,6-pentamethyl-4-piperidinyl 2-methyl-2-propenoate, 2-propenamide and 2-propenoic acid, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 324575-79-3

CMF (C18 H17 N3 O3 . C14 H25 N O2 . C10 H14 O4 . C8 H8 . C7 H12 O2 . C3 H5 N O . C3 H4 O2)x

CCI PMS

CM 2

CRN 96478-09-0 CMF C18 H17 N3 O3

CM 3

CRN 68548-08-3 CMF C14 H25 N O2

CM 4

CRN 141-32-2 CMF C7 H12 O2

CRN 100-42-5 CMF C8 H8

CM 6

CRN 97-90-5 CMF C10 H14 O4

CM 7

CRN 79-10-7 CMF C3 H4 O2

CM 8

CRN 79-06-1 CMF C3 H5 N O

RN 324575-82-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl]ethyl 2-methyl-2-propenoate, butyl 2-propenoate, 1,2-ethanediyl bis(2-methyl-2-propenoate), ethenylbenzene, oxiranylmethyl 2-methyl-2-propenoate, 1,2,2,6,6-pentamethyl-4-piperidinyl 2-methyl-2-propenoate, 2-propenamide and 2-sulfoethyl 2-methyl-2-propenoate sodium salt, ammonium salt (9CI) (CA INDEX NAME)

324575-81-7 CRN

(C18 H17 N3 O3 . C14 H25 N O2 . C10 H14 O4 . C8 H8 . C7 H12 O2 . C7

 $\dot{\text{H}}$ 10 O3 . C6 H10 O5 S . C4 H6 O2 . C3 H5 N O . Na)x

CCI PMS

> 2 CM

96478-09-0 CRN CMF C18 H17 N3 O3

OH OH O CH<sub>2</sub> 
$$\parallel$$
  $\parallel$   $\parallel$  CH<sub>2</sub>-CH<sub>2</sub>-O-C-C-Me

3 CM

68548-08-3 CRN CMF C14 H25 N O2

CM

CRN 1804-87-1 CMF C6 H10 O5 S . Na

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{HO}_3\text{S}-\text{CH}_2-\text{CH}_2-\text{O}-\text{C}-\text{C}-\text{Me} \end{array}$$

) Na

CM

141-32-2 CRN CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH-----} \text{CH}_2 \end{array}$$

CRN 106-91-2 CMF C7 H10 O3

CM

CRN 100-42-5 CMF C8 H8

$$_{\mathrm{H_2C}} = _{\mathrm{CH-Ph}}$$

CRN 97-90-5 CMF C10 H14 O4

CM 9

CRN 79-41-4 CMF C4 H6 O2

CM 10

CRN 79-06-1 CMF C3 H5 N O

$$\begin{matrix} \text{O} \\ \parallel \\ \text{H}_2\text{N}-\text{C}-\text{CH} = \text{CH}_2 \end{matrix}$$

324575-89-5 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, CN ethenylbenzene, 1,6-hexanediyl bis(2-methyl-2-propenoate) and 2-hydroxyethyl 2-propenoate, ammonium salt (9CI) (CA INDEX NAME)

1 CM

324575-88-4 CRN (C14 H22 O4 . C8 H8 . C7 H12 O2 . C5 H8 O3 . C4 H6 O2)x CMF CCI PMS

2 CM

6606-59-3 CRN CMF C14 H22 O4

3 CM

CRN 818-61-1 CMF C5 H8 O3

$$\begin{smallmatrix} & & & \circ \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} & \to \text{CH}_2 \\ \end{smallmatrix}$$

CM

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH----} \text{CH----} \end{array}$$

CM 5

CRN 100-42-5 CMF C8 H8

 $_{\rm H2C}$  CH- Ph

79-41-4 CRN C4 H6 O2 CMF

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

324575-91-9 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with dodecyl 2-methyl-2-propenoate, ethenylbenzene and 2-propenamide, ammonium salt (9CI) (CA INDEX NAME) CN

CM 1

324575-90-8 CRN

(C16 H30 O2 . C8 H8 . C4 H6 O2 . C3 H5 N O)× CMF

CCI PMS

> 2 CM

CRN 142-90-5 CMF C16 H30 O2

$$$^{\rm O}$$$
 CH2  $$^{\rm H}_{\rm 2}$$  Me- (CH2) 11- O- C- C- Me

CM 3

CRN 100-42-5 CMF C8 H8

$$_{\mathrm{H_2C}}$$
 CH $-$  Ph

CM 4

CRN 79-41-4 CMF C4 H6 O2

5 CM

CRN 79-06-1

CMF C3 H5 N O

$$\begin{matrix} \text{O} \\ || \\ \text{H}_2\text{N}-\text{C}-\text{CH} & \text{CH}_2 \end{matrix}$$

324575-93-1 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, CN 1,2-ethanediyl bis(2-methyl-2-propenoate), ethenylbenzene and 2-propenamide, ammonium salt (9CI) (CA INDEX NAME)

CM 1

324575-92-0

(C10 H14 O4 . C8 H8 . C7 H12 O2 . C4 H6 O2 . C3 H5 N O)x CMF

PMS CCI

> 2 CM

CRN 141-32-2

CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH-----} \text{CH}_2 \end{array}$$

3 CM

CRN 100-42-5

CMF C8 H8

$$_{\rm H2C}$$
 CH $-$  Ph

4 CM

CRN 97-90-5

CMF C10 H14 O4

CM 5

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CRN 79-06-1 C3 H5 N O CMF

$$\begin{matrix} \text{O} \\ || \\ \text{H}_2\text{N}-\text{C}-\text{CH} = \text{CH}_2 \end{matrix}$$

324575-95-3 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, CN 1,2-ethanediyl bis(2-methyl-2-propenoate), ethenylbenzene and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, ammonium salt (9CI) (CA INDEX NAME)

CM 1

324575-94-2 CRN (C10 H14 O4 . C8 H8 . C7 H13 N O4 S . C7 H12 O2 . C4 H6 O2)x CCI PMS

2 CM

CRN 15214-89-8 CMF C7 H13 N O4 S

$$\begin{array}{c} \text{O} \\ \text{NH-C-CH} \\ \text{CH}_2 \\ \text{Me-C-CH}_2 - \text{SO}_3\text{H} \\ \text{Me} \end{array}$$

3 CM

CRN 141-32-2 CMF C7 H12 O2

$$\overset{\text{O}}{\underset{\text{n-BuO-C-CH}}{\parallel}}\text{CH}_2$$

4 CM

CRN 100-42-5 CMF C8 H8

 $H_2C == CH - Ph$ 

5 CM

CRN 97-90-5 CMF C10 H14 O4

CM 6

79-41-4 CRN CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

324575-97-5 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, CN ethenylbenzene, oxydi-2,1-ethanediyl bis(2-methyl-2-propenoate) and 2-propenamide, ammonium salt (9CI) (CA INDEX NAME)

CM

324575-96-4 CRN

(C12 H18 O5 . C8 H8 . C7 H12 O2 . C4 H6 O2 . C3 H5 N O)x CMF

CCI PMS

> 2 CM

CRN 2358-84-1 CMF C12 H18 O5

3 CM

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \end{array} \text{CH}_2$$

CRN 100-42-5 CMF C8 H8

$$_{\rm H_2C}$$
  $=$   $_{\rm CH}$   $_{\rm Ph}$ 

CM 5

CRN 79-41-4 CMF C4 H6 O2

CM 6

CRN 79-06-1 CMF C3 H5 N O

324575-98-6 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, CN ethenylbenzene, oxiranylmethyl 2-methyl-2-propenoate and 2-propenamide, ammonium salt (9CI) (CA INDEX NAME)

CM

CRN 75266-11-4

(C8 H8 . C7 H12 O2 . C7 H10 O3 . C4 H6 O2 . C3 H5 N O)x

CCI PMS

> CM 2

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \end{array} \text{CH}_2$$

CRN 106-91-2 C7 H10 O3 CMF

$$\stackrel{O}{ \ \, } \quad \stackrel{O}{ \ \, } \quad \stackrel{CH_2}{ \ \, } \quad \stackrel{CH_2-O-C-C-Me}{ \ \, }$$

CM

100-42-5 CRN CMF C8 H8

$$H_2C = CH - Ph$$

5 CM

79-41-4 CRN C4 H6 O2 CMF

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM6

79-06-1 CRN C3 H5 N O CMF

$$\begin{matrix} & \circ \\ || \\ \mathsf{H}_2\mathsf{N} - \mathsf{C} - \mathsf{C} \mathsf{H} == \mathsf{C} \mathsf{H}_2 \end{matrix}$$

RN 324576-03-6 HCAPLUS

2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, CN 1,2-ethanediyl bis(2-methyl-2-propenoate), ethenylbenzene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-methyl-2-propenoate and 2-propenamide, ammonium salt (9CI) (CA INDEX NAME)

CM 1

324576-02-5 CRN (C14 H9 F17 O2 . C10 H14 O4 . C8 H8 . C7 H12 O2 . C4 H6 O2 . C3 H5 N  $\,$ CMF 0)x CCI PMS

CRN 1996-88-9 C14 H9 F17 O2 CMF

$$$^{\rm O}_{\rm F_3C^-}$$$
 CH  $_2^{\rm CH_2}$   $^{\rm H_2}$   $^{\rm H_2}$  CH  $_2^{\rm CH_2^-}$  O  $^{\rm C-}$  C  $^{\rm C-}$  Me

CM 3

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM5

97-90-5 CRN CMF C10 H14 O4

CM6

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

7 CM

CRN 79-06-1 CMF C3 H5 N O

RN 324576-06-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxydi-2,1-ethanediyl ester, polymer with butyl 2-propenoate, ethenylbenzene, 2,2,3,4,4,4-hexafluorobutyl 2-methyl-2-propenoate and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 324576-05-8

CMF (C12 H18 O5 . C8 H8 F6 O2 . C8 H8 . C7 H13 N O4 S . C7 H12 O2)x CCI PMS

CM 2

CRN 36405-47-7 CMF C8 H8 F6 O2

CM 3

CRN 15214-89-8 CMF C7 H13 N O4 S

CM 4

CRN 2358-84-1 CMF C12 H18 O5

CRN 141-32-2 CMF C7 H12 O2

 $\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH---} \text{CH} \end{array}$ 

CM 6

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

RN 324576-08-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene, 2-propenamide and 2,2,3,3-tetrafluoropropyl 2-methyl-2-propenoate, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 324576-07-0 CMF (C8 H8 . C7 H12 O2 . C7 H8 F4 O2 . C4 H6 O2 . C3 H5 N O)× CCI PMS

CM 2

CRN 45102-52-1 CMF C7 H8 F4 O2

 $\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{F}_2\text{CH}-\text{CF}_2-\text{CH}_2-\text{O}-\text{C}-\text{C}-\text{Me} \end{array}$ 

CM 3

CRN 141-32-2 CMF C7 H12 O2

 $\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH-----} \text{CH}_2 \end{array}$ 

CM 4

 $H_2C = CH - Ph$ 

CM 5

79-41-4 CRN C4 H6 O2 CMF

CH<sub>2</sub> Me-C-CO2H

> 6 CM

79-06-1 CRN C3 H5 N O CMF

 $H_2N-C-CH=CH_2$ 

324576-10-5 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, CN ethenylbenzene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and 2-propenamide, ammonium salt (9CI) (CA INDEX NAME)

CM 1

324576-09-2

(C14 H9 F17 O2 . C8 H8 . C7 H12 O2 . C7 H10 O3 . C4 H6 O2 . C3 H5 N  $\,$ CMF

0)x CCI PMS

> 2 CM

> > 1996-88-9 CRN

CMF C14 H9 F17 O2

O CH<sub>2</sub>  $F_3C-(CF_2)_7-CH_2-CH_2-O-C-C-Me$ 

> 3 CM

CRN 141-32-2

CMF C7 H12 O2

CRN 106-91-2 CMF C7 H10 O3

$$\stackrel{\text{O}}{\stackrel{\text{CH}_2-}{\bigcirc}} \text{CH}_2 - \stackrel{\text{O}}{\stackrel{\text{CH}_2}{\bigcirc}} \text{CH}_2$$

5 CM

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM6

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM7

CRN 79-06-1 CMF C3 H5 N O

RN 324576-13-8 HCAPLUS CN

2-Propenoic acid, 2-methyl-, polymer with 1,2-ethanediyl bis(2-methyl-2-propenoate), ethenylbenzene, methyl 2-methyl-2-propenoate, 2-propenamide and trifluoroethyl 2-methyl-2-propenoate, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 324576-12-7 (C10 H14 O4 . C8 H8 . C6 H7 F3 O2 . C5 H8 O2 . C4 H6 O2 . C3 H5 N O) x

CCI PMS

2 CM

CRN 38785-10-3

CMF C6 H7 F3 O2

CCI IDS

$$\begin{array}{c} ^{\text{H}_2\text{C}} \circ \\ \parallel \ \parallel \\ \text{Me-C-C-OEt} \end{array}$$

$$3 (D1-F)$$

3 CM

CRN 100-42-5

CMF C8 H8

$$H_2C == CH - Ph$$

CM

CRN 97-90-5

CMF C10 H14 O4

CM 5

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{\text{H}_2\text{C}} & \text{O} \\ \parallel & \parallel \\ \text{Me-C-C-OMe} \end{array}$$

6 CM

CRN 79-41-4 CMF C4 H6 O2

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CRN 79-06-1 CMF C3 H5 N O

$$\begin{matrix} \circ \\ \parallel \\ \mathsf{H}_2\mathsf{N}-\mathsf{C}-\mathsf{C}\mathsf{H} == \mathsf{C}\mathsf{H}_2 \end{matrix}$$

324576-18-3 HCAPLUS RNButanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with dodecyl 2-methyl-2-propenoate, ethenylbenzene, 2-methyl-2-propenoic acid and 2-propenamide, ammonium salt (9CI) (CA CN INDEX NAME)

CM 1

324576-17-2 CRN (C16 H30 O2 . C10 H14 O5 . C8 H8 . C4 H6 O2 . C3 H5 N O)  $\times$ CMF CCI **PMS** 

2 CM

CRN 21282-97-3 CMF C10 H14 O5

CM 3

CRN 142-90-5 C16 H30 O2 CMF

$$$^{\rm O}$$$
 CH2  $$^{\rm H}$$  Me- (CH2) 11-0-C-C-Me

CM4

CRN 100-42-5 CMF C8 H8

 $H_2C == CH - Ph$ 

CM 5

CRN 79-41-4 CMF C4 H6 O2

CH<sub>2</sub>  $Me-C-CO_2H$ 

> CM 6

79-06-1 CRN CMF C3 H5 N O

0  $H_2N-C-CH=CH_2$ 

324576-21-8 HCAPLUS RN

Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, CN polymer with butyl 2-propenoate, 1,2-ethanediyl bis(2-methyl-2propenoate), ethenylbenzene, 2-methyl-2-propenoic acid and 2-propenamide, ammonium salt (9CI) (CA INDEX NAME)

CM 1

324576-20-7 CRN

(C10 H14 O5 . C10 H14 O4 . C8 H8 . C7 H12 O2 . C4 H6 O2 . C3 H5 N O)  $\times$ CMF CCI PMS

2 CM

21282-97-3 CRN CMF C10 H14 O5

H<sub>2</sub>C 0 0  ${\tt Me^-C^-C^-O^-CH_2^-CH_2^-O^-C^-CH_2^-C^-Me^-}$ 

> 3 CM

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH-----} \text{CH-----} \text{CH}_2 \end{array}$$

100-42-5 CRN CMF C8 H8

$$H_2C = CH - Ph$$

CM 5

97-90-5 CRN CMF C10 H14 O4

6 CM

79-41-4 CRN CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-} \text{C-} \text{CO}_2 \text{H} \end{array}$$

7 CM

CRN 79-06-1 C3 H5 N O CMF

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{H}_2\text{N}-\text{C}-\text{CH} \longrightarrow \text{CH}_2 \end{array}$$

RN324576-24-1 HCAPLUS

2-Propenoic acid, 2-methyl-, oxydi-2,1-ethanediyl ester, polymer with 1-acetyl-2-oxopropyl 2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic CNacid, ammonium salt (9CI) (CA INDEX NAME)

CM 1 SHOSHO 09/869549

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CRN 324576-23-0

(C12 H18 O5 . C9 H12 O4 . C8 H8 . C7 H13 N O4 S . C7 H12 O2)x CMF CCI PMS

CM

CRN 129955-71-1 CMF C9 H12 O4

3 CM

CRN 15214-89-8 CMF C7 H13 N O4 S

$$\begin{array}{c} \text{O} \\ \text{NH-C-CH} \\ \text{CH}_2 \\ \text{Me-C-CH}_2 - \text{SO}_3\text{H} \\ \text{Me} \end{array}$$

CM

CRN 2358-84-1 CMF C12 H18 O5

CM

CRN 141-32-2 CMF C7 H12 O2

$$\overset{\text{O}}{\underset{n\text{-BuO}-\text{C-CH}=-\text{CH}_2}{\parallel}}\text{CH}_2$$

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

RN 324576-27-4 HCAPLUS

CN Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with butyl 2-propenoate, ethenylbenzene, 2-methyl-2-propenoic acid and 2-propenamide, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 324576-26-3

CMF (C10 H14 O5 . C8 H8 . C7 H12 O2 . C4 H6 O2 . C3 H5 N O) x

CCI PMS

CM 2

CRN 21282-97-3 CMF C10 H14 O5

CM 3

CRN 141-32-2 CMF C7 H12 O2

$$\overset{\text{O}}{\underset{n-\text{BuO}-C-CH}{\parallel}}\text{CH}_{2}$$

CM 4

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 5

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

79-06-1 CRN CMF C3 H5 N O

$$^{\circ}_{\parallel}$$
 $^{\circ}_{\text{H}_{2}\text{N}}$ 
 $^{\circ}_{\text{C}}$ 
 $^{\circ}_{\text{C}}$ 
 $^{\circ}_{\text{C}}$ 
 $^{\circ}_{\text{C}}$ 

324576-29-6 HCAPLUS RN

Propanedioic acid, (2-methyl-1-oxo-2-propenyl)-, diethyl ester, polymer CN with butyl 2-propenoate, ethenylbenzene, 2-methyl-2-propenoic acid, oxiranylmethyl 2-methyl-2-propenoate and 2-propenamide, ammonium salt (9CI) (CA INDEX NAME)

1 CM

324576-28-5 CRN

(C11 H16 O5 . C8 H8 . C7 H12 O2 . C7 H10 O3 . C4 H6 O2 . C3 H5 N O)x CMF CCI PMS

2 CM

CRN 4180-09-0 CMF C11 H16 O5

CM 3

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} = \text{CH}_2 \end{array}$$

CM

CRN 106-91-2 CMF C7 H10 O3

$$\overset{\text{O}}{ } \underset{\text{CH}_2-\text{O-C-C-Me}}{\overset{\text{O}}{ }} \overset{\text{CH}_2}{ }$$

CM 5

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 6

CRN 79-41-4 CMF C4 H6 O2

CM 7

CRN 79-06-1 CMF C3 H5 N O

IT 324575-86-2P 324737-88-4P, 2-Acrylamido-2methylpropanesulfonic acid-acrylonitrile-benzyl methacrylate-butyl
methacrylate-ethylene oxide graft copolymer ammonium sulfate
RL: IMF (Industrial manufacture); POF (Polymer in formulation);
TEM (Technical or engineered material use); PREP (Preparation);
USES (Uses)

(pigment dispersion; prepn. and properties of printing ink compn. with two liq. components)

RN 324575-86-2 HCAPLUS

2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, phenylmethyl 2-methyl-2-propenoate, 2-propenenitrile and .alpha.-sulfo-.omega.-[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) ammonium salt, graft (9CI) (CA INDEX NAME)

CM 1

CN

CRN 113405-85-9

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CMF (C2 H4 O)n C21 H34 O6 S . H3 N CCI IDS, PMS

$$D1-(CH_2)_8-Me$$

## ● NH3

CM 2

CRN 15214-89-8 CMF C7 H13 N O4 S

$$\begin{array}{c} \text{NH-C-CH} \\ \text{NH-C-CH} \\ \text{CH}_2 \\ \text{Me-C-CH}_2 - \text{SO}_3\text{H} \\ \text{Me} \end{array}$$

CM 3

CRN 2495-37-6 CMF C11 H12 O2

CM 4

CRN 107-13-1 CMF C3 H3 N  $H_2C = CH - C = N$ 

5 CM

97-88-1 CRN C8 H14 O2 CMF

$$\begin{array}{c} \text{O} \quad \text{CH2} \\ \parallel \quad \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

324737-88-4 HCAPLUS RN2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, oxirane, phenylmethyl 2-methyl-2-propenoate and 2-propenenitrile, hydrogen sulfate, CN

graft, ammonium salt (9CI) (CA INDEX NAME)

CM 1

7664-93-9 CRN H2 O4 S CMF

CM 2

324737-87-3 CRN (C11 H12 O2 . C8 H14 O2 . C7 H13 N O4 S . C3 H3 N . C2 H4 O) x CMF

CCI PMS

> 3 CM

CRN 15214-89-8 CMF C7 H13 N O4 S

$$\begin{array}{c} \text{O} \\ \text{NH-C-CH== CH}_2 \\ \text{Me-C-CH}_2 - \text{SO}_3\text{H} \\ \text{Me} \end{array}$$

4 CM

CRN 2495-37-6

CMF C11 H12 O2

CM 5

CRN 107-13-1 CMF C3 H3 N

 $H_2C = CH - C = N$ 

CM 6

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 7

CRN 75-21-8 CMF C2 H4 O

0

L23 ANSWER 19 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:91292 HCAPLUS

DN 134:149329

Pigment dispersing agents, pigment dispersions and color photosensitive compositions for use in the manufacture of color filters of liquid-crystal display devices, etc.

IN Yoshimura, Kosaku; Takeda, Akihiko

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp. CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09B067-20 ICS G03F007-004

CC 46-4 (Surface Active Agents and Detergents) Section cross-reference(s): 42, 74, 76

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO. DATE

PI JP 2001031885 A2 PRAI JP 1999-139928 A **A**2 JP 1999-364066 19991222 20010206 19990520 The dispersing agents with good dispersion power are obtained from graft copolymers of 15-98% oligomers with unsatd. ethylene end groups, 1-40% N-contg. polymerizable monomers and 1-70% ether-contg. polymerizable monomers. Thus, polymg. 3-(N,N-dimethylamino)propylacrylamide 4.5, Macromonomer AA 6 (monomethacryloyl-terminated PMMA) 19.5 and NK Ester M 230G (methoxy polyethylene glycol monomethacrylate) 6 in the presence of V 65 (azo radical initiator) 0.12 and 1-methoxy-2-Pr acetate 45 parts gave a graft copolymer, 8.28 g of which was mixed with 8.28 g C.I. Pigment Red 254 and 63.44 g 1-methoxy-2-Pr acetate to give a red color dispersion. Mixing this dispersion 32.4, methacrylic acid/benzyl methacrylate copolymer 9.0, 4-[p-N, N-di(ethoxycarbonylmethyl)]-2,6-di(trichloromethyl)-S-triazine 0.2 and hydroquinone monomethyl ether 0.01 in 1-methoxy-2-Pr acetate 62 part gave a title compn. methacrylate graft copolymer pigment dispersing agent color photosensitive ST compn; photo curable dispersion color filter liq cryst display Polyoxyalkylenes, uses ΙT RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses) (acrylic, graft, dispersants; manuf. of dispersants for pigment dispersions useful in manuf. of color filters of liq.-crystal display devices) IT Glass, uses RL: DEV (Device component use); USES (Uses) (color filter substrate; manuf. of dispersants for pigment dispersions useful in manuf. of color filters of liq.-crystal display devices) Pigments, nonbiological TT (dispersants for; manuf. of dispersants for pigment dispersions useful in manuf. of color filters of liq.-crystal display devices) IT Dispersing agents (for pigments; manuf. of dispersants for pigment dispersions useful in manuf. of color filters of liq.-crystal display devices) Light-sensitive materials IT Optical filters (manuf. of dispersants for pigment dispersions useful in manuf. of color filters of liq.-crystal display devices) 65697-21-4, Benzyl methacrylate-methacrylic acid copolymer TΤ RL: DEV (Device component use); POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (binder; manuf. of dispersants for pigment dispersions useful in manuf. of color filters of liq.-crystal display devices) 324053-10-3P 324053-12-5P 324053-14-7P ·IT 324053-19-2P **324053-22-7P** 324518-36-7P, 324053-16-9P Ethylene oxide-methyl methacrylate-N-vinylimidazole graft copolymer methyl ether 324518-38-9P, 3-(N,N-Dimethylamino)propylacrylamideethylene oxide-2-hydroxyethyl methacrylate-methyl methacrylate graft copolymer methyl ether RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses) (dispersants; manuf. of dispersants for pigment dispersions useful in manuf. of color filters of liq.-crystal display devices) 324053-08-9, Dimethylaminopropylacrylamide-Macromonomer AA IT 6-methoxypolyethylene glycol monomethacrylate graft copolymer 324518-34-5, 3-(N,N-Dimethylamino)propylacrylamide-ethylene oxide-methyl methacrylate graft copolymer methyl ether RL: MOA (Modifier or additive use); PRP (Properties); USES (dispersants; manuf. of dispersants for pigment dispersions

useful in manuf. of color filters of liq.-crystal display devices) 147-14-8, C.I. Pigment Blue 15:6 14302-13-7, C.I. Pigment Green 36 IT 30125-47-4, C.I. Pigment yellow 138 84632-65-5, C.I. Pigment Red 254 RL: TEM (Technical or engineered material use); USES (Uses) (pigment; manuf. of dispersants for pigment dispersions useful in manuf. of color filters of liq.-crystal display devices)

4419-11-8, V-65 IT

RL: CAT (Catalyst use); USES (Uses) (radical initiator; manuf. of dispersants for pigment dispersions useful in manuf. of color filters of liq.-crystal display devices)

324053-10-3P 324053-12-5P 324053-16-9P IT

324053-22-7P 324518-38-9P, 3-(N,N-

Dimethylamino)propylacrylamide-ethylene oxide-2-hydroxyethyl methacrylate-methyl methacrylate graft copolymer methyl ether RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(dispersants; manuf. of dispersants for pigment dispersions useful in manuf. of color filters of liq.-crystal display devices)

324053-10-3 HCAPLUS RN

2-Propenamide, N-[3-(dimethylamino)propyl]-, polymer with Macromonomer AA CN 6 and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

122525-04-6 CRN CMF Unspecified CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 25736-86-1

(C2 H4 O)n C4 H6 O2 CMF

CCI PMS

CM 3

CRN 3845-76-9 CMF C8 H16 N2 O

$$Me_2N-(CH_2)_3-NH-C-CH=CH_2$$

RN 324053-12-5 HCAPLUS

2-Propenoic acid, 2-methyl-, methyl ester, polymer with CN N-[3-(dimethylamino)propyl]-2-propenamide and oxirane, graft (9CI) INDEX NAME)

CRN 3845-76-9 CMF C8 H16 N2 O

CM2

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-} \text{C-} \text{C-} \text{OMe} \end{array}$$

CM 3

75-21-8 CRN CMF C2 H4 O



RN324053-16-9 HCAPLUS

2-Propenoic acid, 2-methyl-, methyl ester, polymer with CN N-[3-(dimethylamino)propyl]-2-propenamide and methyloxirane, graft (9CI) (CA INDEX NAME)

CM 1

3845-76-9 CRN CMF C8 H16 N2 O

$$\begin{array}{c}
0 \\
|| \\
\text{Me}_2\text{N-} (\text{CH}_2)_3 - \text{NH-C-CH-} \text{CH}_2
\end{array}$$

2 CM

CRN 80-62-6 CMF C5 H8 O2

CRN 75-56-9 CMF C3 H6 O

324053-22-7 HCAPLUS RN

2-Propenamide, N-[3-(dimethylamino)propyl]-, polymer with Macromonomer AA CN 714 and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-methoxypoly(oxy-1,2ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

289701-59-3 CRN Unspecified CMF

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

26915-72-0 CRN

CMF (C2 H4 O)n C5 H8 O2

CCI

$$\begin{array}{c|c} ^{H2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-C-C-C} & \hline \\ \end{array} \text{O-CH}_2\text{--CH}_2 \\ \hline \end{array} \text{OMe}$$

CM 3

CRN 3845-76-9 CMF C8 H16 N2 O

$$^{\rm O}_{||}$$
  $^{\rm Me}_{\rm 2}$ N $^{-}$  (CH<sub>2</sub>)  $^{\rm 3}$  $^{-}$  NH $^{-}$  C $^{-}$  CH $^{==}$  CH $^{\rm 2}$ 

324518-38-9 HCAPLUS RN

2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with CN N-[3-(dimethylamino)propyl]-2-propenamide, methyl 2-methyl-2-propenoate and oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

CRN 67-56-1 CMF C H4 O

нзс-он

CM 2

CRN 324518-37-8

CMF (C8 H16 N2 O . C6 H10 O3 . C5 H8 O2 . C2 H4 O) x

CCI PMS

CM 3

CRN 3845-76-9

CMF C8 H16 N2 O

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{Me}_{2}\text{N- (CH}_{2}) \text{ }_{3}\text{-- NH- C- CH---- CH} \end{array}$$

CM 4

CRN 868-77-9 CMF C6 H10 O3

CM 5

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{ccc} ^{\text{H}_2\text{C}} & \text{O} \\ \parallel & \parallel \\ ^{\text{Me}-\text{C}-\text{C}-\text{OMe}} \end{array}$$

CM 6

CRN 75-21-8 CMF C2 H4 O



CN

324053-08-9, Dimethylaminopropylacrylamide-Macromonomer AA IT 6-methoxypolyethylene glycol monomethacrylate graft copolymer 324518-34-5, 3-(N,N-Dimethylamino)propylacrylamide-ethylene oxide-methyl methacrylate graft copolymer methyl ether RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)

(dispersants; manuf. of dispersants for pigment dispersions useful in manuf. of color filters of liq.-crystal display devices)

11/08/2002

324053-08-9 HCAPLUS RN

2-Propenamide, N-[3-(dimethylamino)propyl]-, polymer with Macromonomer AA 6 and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-methoxypoly(oxy-1,2ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

122525-04-6 CRN Unspecified CMF PMS, MAN CCI

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

2 CM

CRN 26915-72-0

(C2 H4 O)n C5 H8 O2 CMF

CCI PMS

$$\begin{array}{c|c} ^{H2C} & \text{O} \\ \parallel & \parallel \\ \text{Me} - \text{C} - \text{C} \end{array} \begin{array}{c} \text{O} - \text{CH}_2 - \text{CH}_2 \\ \end{array} \begin{array}{c} \text{OMe} \end{array}$$

CM 3

3845-76-9 CRN CMF C8 H16 N2 O

324518-34-5 HCAPLUS RN

2-Propenoic acid, 2-methyl-, methyl ester, polymer with N-[3-(dimethylamino)propyl]-2-propenamide and oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

1 CM

CRN 67-56-1 CMF C H4 O

нзс-он

CM 2

324053-12-5 CRN

(C8 H16 N2 O . C5 H8 O2 . C2 H4 O)x

CCI **PMS** 

> CM 3

CRN 3845-76-9 CMF C8 H16 N2 O

 $Me_2N-(CH_2)_3-NH-C-CH=CH_2$ 

CM

CRN 80-62-6 CMF C5 H8 O2

H<sub>2</sub>C O Me-C-C-OMe

> CM 5

CRN 75-21-8 C2 H4 O CMF

ANSWER 20 OF 55 HCAPLUS COPYRIGHT 2002 ACS L23

2001:17870 HCAPLUS ΑN

DN 134:87651

Acrylic resin pigment dispersants, their pastes, and their coating TIcompositions with good let-down stability

Nakajima, Yoshio; Yugawa, Yoshiyuki; Nakai, Noboru; Kamimori, Isao IN

Kansai Paint Co., Ltd., Japan PA

Jpn. Kokai Tokkyo Koho, 12 pp. SO

CODEN: JKXXAF DTPatent

LA Japanese

IC ICM C08F220-18

ICS C08L033-08; C09D133-08

42-5 (Coatings, Inks, and Related Products) Section cross-reference(s): 41

FAN.CNT 1

APPLICATION NO. DATE PATENT NO. KIND DATE \_\_\_\_\_ \_\_\_\_\_\_\_

20010109 JP 1999-169074 19990616 JP 2001002736 A2 PΙ

- The resins are prepd. from unsatd. monomers having amino, quaternary AΒ ammonium salt groups, and/or sulfonate groups 0.1-10, OH-contg. unsatd. monomers 2-30, C8-24 branched alkyl-contg. (meth)acrylate monomers 5-50, and other unsatd. comonomers 10-92.9 parts and show Mw 10,000-100,000. Thus, 80 parts (solid) polycaprolactone 2-hydroxyethyl methacrylate ester-Me methacrylate-isostearyl acrylate-dimethylaminoethyl methacrylate copolymer (Mw 28,000, OH value 24 mg-KOH/g) paste contg. Monarch 1300 (carbon black) was blended with Bu acrylate-2-hydroxyethyl methacrylate-Me methacrylate-styrene copolymer 180, melamine resin (Nikalac MS 25) 60, a crosslinking catalyst (Nacure 5225) 1.1, and a surface modifier (Disparon LC 955) 1.4 parts, applied on a degreased steel plate, and baked at 140.degree. to give a coated plate showing good appearance, cross-cut adhesion test 100/100, and excellent resistance against acid rain and MEK. isostearyl acrylate copolymd acrylic pigment dispersant; coating pigment ST
  - dispersibility let down stability; polyester weather resistant coating pigment colorability

Carbon black, uses TT

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (Monarch 1300; let-down-stable coatings contg. isosteary) (meth)acrylate-copolymd. acrylic resins for pigment dispersants)

Coating materials IT

(chem. resistant, weather-resistant; let-down-stable coatings contg. isostearyl (meth)acrylate-copolymd. acrylic resins for pigment dispersants)

Polyesters, uses IT

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses')

(coating binders; let-down-stable coatings contg. isosteary) (meth)acrylate-copolymd. acrylic resins for pigment dispersants)

Epoxy resins, uses IT

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(coating binders; let-down-stable coatings contg. isosteary) (meth)acrylate-copolymd. acrylic resins for pigment dispersants)

IT Aminoplasts

RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)

(crosslinkers; let-down-stable coatings contg. isostearyl (meth)acrylate-copolymd. acrylic resins for pigment dispersants)

Dispersing agents IT

(for pigments; let-down-stable coatings contg. isostearyl (meth)acrylate-copolymd. acrylic resins for pigment dispersants)

Coating materials ΙT

- (weather-resistant, chem.-resistant; let-down-stable coatings contg. isostearyl (meth)acrylate-copolymd. acrylic resins for pigment dispersants)
- 26588-80-7P, Butyl acrylate-2-hydroxyethyl methacrylate-methyl IT methacrylate-styrene copolymer 63150-02-7P, Butyl methacrylate-2-hydroxyethyl acrylate-methyl methacrylate-styrene copolymer 70144-11-5P, Butyl acrylate-glycidyl methacrylate-2-hydroxyethyl methacrylate-styrene copolymer 128171-41-5P, Acrylic acid-butyl methacrylate-isobutyl methacrylate-lauryl methacrylate-methacrylic acid-styrene copolymer 137317-81-8P, Adipic acid-hexahydrophthalic

```
acid-1,6-hexanediol-isophthalic acid-neopentyl glycol-trimethylolpropane
    RL: IMF (Industrial manufacture); TEM (Technical or engineered
     copolymer
    material use); PREP (Preparation); USES (Uses)
        (binder resins; let-down-stable coatings contg. isosteary)
        (meth)acrylate-copolymd. acrylic resins for pigment
        dispersants)
                               127464-53-3, Desmodur N 3500
     9003-08-1, Nikalac MS 25
     RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or
IT
     reagent); USES (Uses)
        (crosslinkers; let-down-stable coatings contg. isostearyl
        (meth)acrylate-copolymd. acrylic resins for pigment dispersants)
     315688-90-5P 315688-91-6P, Dimethylaminoethyl
     methacrylate-2-hydroxyethyl methacrylate-isostearyl acrylate-methyl
IT
     methacrylate-styrene copolymer 315688-92-7P,
     tert-Butylacrylamidosulfonic acid-butyl methacrylate-2-hydroxyethyl
     acrylate-isostearyl methacrylate-methyl methacrylate copolymer
     315688-93-8P, tert-Butylacrylamidosulfonic acid-2-hydroxyethyl
     acrylate-isostearyl acrylate-methyl methacrylate copolymer
     315688-94-9P, tert-Butylacrylamidosulfonic acid-butyl
     methacrylate-2-hydroxyethyl acrylate-isostearyl acrylate-methyl
     methacrylate-styrene copolymer 315688-95-0P,
     tert-Butylacrylamidosulfonic acid-butyl methacrylate-2-hydroxyethyl
     acrylate-2-hydroxyethyl methacrylate-isostearyl acrylate-methyl
     methacrylate copolymer 315688-96-1P, 2-Hydroxyethyl
     acrylate-isostearyl acrylate-trimethylmethacryloxyethylammonium
      chloride-methyl methacrylate copolymer 315688-97-2P, Butyl
     methacrylate-dimethylaminoethyl methacrylate-2-hydroxyethyl
      methacrylate-isostearyl acrylate-methyl methacrylate copolymer
      316372-57-3P
      RL: IMF (Industrial manufacture); MOA (Modifier or additive
      use); PRP (Properties); PREP (Preparation); USES (Uses)
         (let-down-stable coatings contg. isostearyl (meth)acrylate-copolymd.
         acrylic resins for pigment dispersants)
2-14-8, Cyanine Blue 5206 980-26-7, Ho
                                    980-26-7, Hostaperm Pink EB Transparent
      147-14-8, Cyanine Blue 5206
      RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
 IT
         (let-down-stable coatings contg. isostearyl (meth)acrylate-copolymd.
         acrylic resins for pigment dispersants)
      12597-69-2, Steel, miscellaneous
 ΙT
      RL: MSC (Miscellaneous)
         (substrates; let-down-stable coatings contg. isosteary)
         (meth)acrylate-copolymd. acrylic resins for pigment dispersants)
      26588-80-7P, Butyl acrylate-2-hydroxyethyl methacrylate-methyl
 IT
      methacrylate-styrene copolymer 63150-02-7P, Butyl
      methacrylate-2-hydroxyethyl acrylate-methyl methacrylate-styrene copolymer
      70144-11-5P, Butyl acrylate-glycidyl methacrylate-2-hydroxyethyl
      methacrylate-styrene copolymer
      RL: IMF (Industrial manufacture); TEM (Technical or engineered
      material use); PREP (Preparation); USES (Uses)
          (binder resins; let-down-stable coatings contg. isosteary)
          (meth)acrylate-copolymd. acrylic resins for pigment
          dispersants)
       26588-80-7 HCAPLUS
       2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl
 RN
       2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate (9CI) (CA
 CN
       INDEX NAME)
       CM
            1
       CRN 868-77-9
```

CMF C6 H10 O3

$$^{\rm H_2C}$$
 O  $^{\parallel}$   $^{\parallel}$   $^{\rm Me-C-C-O-CH_2-CH_2-OH}$ 

CM 2

CRN 141-32-2 CMF C7 H12 O2

$$\overset{\text{O}}{\underset{\text{n-BuO-C-CH}}{\parallel}}\text{CH}_{2}$$

CM 3

CRN 100-42-5 CMF C8 H8

$$_{\rm H_2C}$$
  $=$   $_{\rm CH}$   $_{\rm Ph}$ 

CM 4

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{ccc} ^{H_2C} & \text{O} \\ & \parallel & \parallel \\ \text{Me-} \text{C-} \text{C-} \text{OMe} \end{array}$$

RN 63150-02-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenylbenzene, 2-hydroxyethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array}$$

CM 2

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 3

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{ccc} ^{\text{H}_2\text{C}} & \text{O} \\ \parallel & \parallel \\ ^{\text{Me}-\text{C}-\text{C}-\text{OMe}} \end{array}$$

RN 70144-11-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl 2-propenoate, ethenylbenzene and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9 CMF C6 H10 O3

$$\begin{array}{c|c} {\rm H_2C} & {\rm O} \\ \parallel & \parallel \\ {\rm Me-C-C-O-CH_2-CH_2-OH} \end{array}$$

CM 2

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \end{array} = \text{CH}_2$$

CRN 106-91-2 CMF C7 H10 O3

$$\overset{\text{O}}{ } \overset{\text{O}}{ } \overset{\text{CH}_2}{ } \overset{\text{CH$$

CM 4

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

315688-90-5P 315688-91-6P, Dimethylaminoethyl IT methacrylate-2-hydroxyethyl methacrylate-isostearyl acrylate-methyl methacrylate-styrene copolymer 315688-92-7P, tert-Butylacrylamidosulfonic acid-butyl methacrylate-2-hydroxyethyl acrylate-isostearyl methacrylate-methyl methacrylate copolymer 315688-93-8P, tert-Butylacrylamidosulfonic acid-2-hydroxyethyl acrylate-isostearyl acrylate-methyl methacrylate copolymer 315688-94-9P, tert-Butylacrylamidosulfonic acid-butyl methacrylate-2-hydroxyethyl acrylate-isostearyl acrylate-methyl methacrylate-styrene copolymer 315688-95-0P, tert-Butylacrylamidosulfonic acid-butyl methacrylate-2-hydroxyethyl acrylate-2-hydroxyethyl methacrylate-isostearyl acrylate-methyl methacrylate copolymer 315688-96-1P, 2-Hydroxyethyl acrylate-isostearyl acrylate-trimethylmethacryloxyethylammonium chloride-methyl methacrylate copolymer 315688-97-2P, Butyl methacrylate-dimethylaminoethyl methacrylate-2-hydroxyethyl methacrylate-isostearyl acrylate-methyl methacrylate copolymer 316372-57-3P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (let-down-stable coatings contg. isostearyl (meth)acrylate-copolymd. acrylic resins for pigment dispersants)

RN 315688-90-5 HCAPLUS

2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with isooctadecyl 2-propenoate, methyl 2-methyl-2-propenoate and .alpha.-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-.omega.- hydroxypoly[oxy(1-oxo-1,6-hexanediyl)], graft (9CI) (CA INDEX NAME)

CM 1

CRN 93841-48-6 CMF C21 H40 O2 CCI IDS

$$\begin{array}{c} \text{O} \\ || \\ \text{(iso-C}_{18}\text{H}_{37}\text{)} - \text{O-C-CH} == \text{CH}_2 \end{array}$$

81984-60-3 CRN

(C6 H10 O2)n C6 H10 O3 CMF

PMS CCI

$$\begin{array}{c|c} ^{H2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-C-C-O-CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{C-(CH}_2) \, 5 \\ \end{array} \right]_n \text{OH}$$

3 CM

CRN 2867-47-2 CMF C8 H15 N O2

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{Me}_2 \text{N-CH}_2 \text{-CH}_2 \text{-O-C-C-Me} \end{array}$$

CM4

CRN 80-62-6 CMF C5 H8 O2

$$^{\text{H}_2\text{C}}_{||}$$
  $^{\text{O}}_{||}$   $^{\text{M}_2\text{C}}_{||}$   $^{\text{O}}_{||}$ 

315688-91-6 HCAPLUS RN

2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with CN ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate, isooctadecyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

93841-48-6 CRN C21 H40 O2 CMF CCI IDS

$$\begin{array}{c} \text{O} \\ || \\ \text{(iso-C}_{18\text{H}37}\text{)} - \text{O-C-CH} = \text{CH}_2 \end{array}$$

CRN 2867-47-2 CMF C8 H15 N O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & \parallel & \parallel \\ \text{Me}_2 \text{N-CH}_2 \text{--CH}_2 \text{--O-C-C-Me} \end{array}$$

CM 3

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 5

CRN 80-62-6 CMF C5 H8 O2

RN 315688-92-7 HCAPLUS

2-Propenoic acid, 2-methyl-, butyl ester, polymer with
(1,1-dimethylethyl)(1-oxo-2-propenyl)sulfamic acid, 2-hydroxyethyl
2-propenoate, isooctadecyl 2-propenoate and methyl 2-methyl-2-propenoate
(9CI) (CA INDEX NAME)

CM 1

CRN 155401-75-5 CMF C7 H13 N O4 S

CRN 93841-48-6 CMF C21 H40 O2 CCI IDS

$$\begin{array}{c} \text{O} \\ || \\ \text{(iso-C}_{18}\text{H}_{37}\text{)} - \text{O-C-CH-} \end{array} \text{CH}_{2} \\$$

CM 3

CRN 818-61-1 CMF C5 H8 O3

$$\begin{smallmatrix} \mathsf{O} \\ || \\ \mathsf{HO-CH}_2\mathsf{-CH}_2\mathsf{-O-C-CH} & \mathsf{CH}_2 \end{smallmatrix}$$

CM 4

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 5

CRN 80-62-6 CMF C5 H8 O2

RN 315688-93-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
(1,1-dimethylethyl)(1-oxo-2-propenyl)sulfamic acid, 2-hydroxyethyl
2-propenoate and isooctadecyl 2-propenoate (9CI) (CA INDEX NAME)

CRN 155401-75-5 CMF C7 H13 N O4 S

CM 2

CRN 93841-48-6 CMF C21 H40 O2 CCI IDS

$$\begin{array}{c} \text{O} \\ || \\ \text{(iso-C}_{18}\text{H}_{37}\text{)} - \text{O} - \text{C} - \text{CH} = \text{CH}_{2} \end{array}$$

CM 3

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} {\rm O} \\ || \\ {\rm HO-CH_2-CH_2-O-C-CH} \end{array}$$

CM 4

CRN 80-62-6 CMF C5 H8 O2

RN 315688-94-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with
(1,1-dimethylethyl)(1-oxo-2-propenyl)sulfamic acid, ethenylbenzene,
2-hydroxyethyl 2-propenoate, isooctadecyl 2-propenoate and methyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 155401-75-5 CMF C7 H13 N O4 S

CRN 93841-48-6 CMF C21 H40 O2 CCI IDS

$$\begin{array}{c} & \text{O} \\ || \\ \text{(iso-C}_{18}\text{H}_{37}\text{)} - \text{O} - \text{C} - \text{CH} = \text{CH}_2 \end{array}$$

CM 3

CRN 818-61-1 CMF C5 H8 O3

$$\begin{smallmatrix} \text{O} \\ \parallel \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH----} \text{CH}_2 \end{smallmatrix}$$

CM 4

CRN 100-42-5 CMF C8 H8

 $_{\rm H_2C} = _{\rm CH-Ph}$ 

5 CM

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{ccc} ^{\text{H}_2\text{C}} & \text{O} \\ & \parallel & \parallel \\ ^{\text{Me}-\text{C}-\text{C}-\text{OMe}} \end{array}$$

315688-95-0 HCAPLUS RN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with CN (1,1-dimethylethyl)(1-oxo-2-propenyl)sulfamic acid, 2-hydroxyethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-propenoate, isooctadecyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 155401-75-5 CMF C7 H13 N O4 S

2 CM

93841-48-6 CRN C21 H40 O2 CMF CCI IDS

$$(iso-C_{18}H_{37}) - o - C - CH = CH_{2}$$

CM 3

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array} \text{CH}_2$$

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 6

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{OMe} \end{array}$$

RN 315688-96-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-hydroxyethyl 2-propenoate, isooctadecyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 93841-48-6 CMF C21 H40 O2 CCI IDS

CM 2

CRN 5039-78-1 CMF C9 H18 N O2 . C1

● c1-

CM 3

$$0 \\ | \\ HO-CH_2-CH_2-O-C-CH = CH_2$$

CRN 80-62-6 CMF C5 H8 O2

RN 315688-97-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, isooctadecyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 93841-48-6 CMF C21 H40 O2 CCI IDS

$$(iso-C_{18}H_{37}) - o-C-CH = CH_{2}$$

CM 2

CRN 2867-47-2 CMF C8 H15 N O2

CM 3

CRN 868-77-9 CMF C6 H10 O3

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 5

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ & \parallel & \parallel \\ \text{Me-} \text{C-} \text{C-} \text{OMe} \end{array}$$

RN 316372-57-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with (1,1-dimethylethyl)(1-oxo-2-propenyl)sulfamic acid, isooctadecyl 2-propenoate and .alpha.-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)], graft (9CI) (CA INDEX NAME)

CM 1

CRN 155401-75-5 CMF C7 H13 N O4 S

CM 2

CRN 93841-48-6 CMF C21 H40 O2 CCI IDS

$$\begin{array}{c} \text{O} \\ || \\ \text{(iso-C}_{18}\text{H}_{37}\text{)} - \text{O} - \text{C} - \text{CH} = \text{CH}_2 \end{array}$$

CRN 81984-60-3

CMF (C6 H10 O2)n C6 H10 O3

CCI PMS

CM 4

CRN 80-62-6 CMF C5 H8 O2

L23 ANSWER 21 OF 55 HCAPLUS COPYRIGHT 2002 ACS

ΑN 2000:819169 HCAPLUS

DN 133:351318

Modified styrene polymers for pigment dispersants, their preparation, and TΤ pigment compositions therewith

Suzuki, Haruko; Satake, Osamu; Uraki, Hisashi; Ikegami, Tomonori; IN Chosokabe, Hiroshi; Yoshida, Mitsuo

PA Toyo Ink Mfg. Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho, 11 pp. SO CODEN: JKXXAF

DTPatent

LA Japanese

IC ICM C08F212-08

ICS C08F008-14; C08F222-00; C08L025-04; C08L035-00; C09C003-10; C09D017-00; C09B067-20

38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 35, 42

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PRAI	JP 2000319333 JP 1998-311538 JP 1998-311539 JP 1999-59563	A2 A A A	20001121 JP 1999-229547 19981102 19980308	JP 1999-229547	19990816

The polymers are reaction products of (A) polymers of arom. hydrophobic AΒ monomers having unsatd. double bonds and monomers having unsatd. double bonds and OH-reactive groups and (B) intermol. condensates of (C10-30 aliph.) oxycarboxylic acids. Pigment compns. contg. the polymers and showing excellent water and abrasion resistance are also claimed. Thus, 100 parts styrene-maleic anhydride copolymer (SMA 1000, Mw 6000, acid value 480) was reacted with 103 parts 12-hydroxystearic acid at 80.degree. and dild. with cyclohexanone to give a polymer soln., 100 parts of which was kneaded with carbon black (Black Pearls 800) to give a.

pigment dispersion showing good storage stability after 1 mo at 60.degree.. Then, the dispersion was applied on a glass plate to give a color coating showing no blistering after 30 min in 80.degree. water and excellent abrasion resistance.

styrene maleic anhydride polymer pigment dispersant; hydroxystearic acid ST condensate modified polymer dispersant; water resistant coating pigment dispersing polymer; abrasion resistant ink pigment dispersing polymer; oxycarboxylic acid condensate modified styrene polymer

ΙT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses) (Black Pearls 800; oxycarboxylic acid-modified styrene polymers for pigment dispersants providing water- and abrasion-resistant inks or coatings)

ΙT Coating materials

(abrasion- and water-resistant; oxycarboxylic acid-modified styrene polymers for pigment dispersants providing water- and abrasion-resistant inks or coatings)

ΙT Water-resistant materials

Water-resistant materials

(inks, abrasion-resistant; oxycarboxylic acid-modified styrene polymers for pigment dispersants providing water- and abrasion-resistant inks or coatings)

ΙT Dispersing agents

Pigments, nonbiological

(oxycarboxylic acid-modified styrene polymers for pigment dispersants providing water- and abrasion-resistant inks or coatings)

IT Inks Inks

> (water-resistant, abrasion-resistant; oxycarboxylic acid-modified styrene polymers for pigment dispersants providing water- and abrasion-resistant inks or coatings)

ΙT 147-14-8, Lionol Blue FG 7351

RL: TEM (Technical or engineered material use); USES (Uses) (oxycarboxylic acid-modified styrene polymers for pigment dispersants providing water- and abrasion-resistant inks or coatings)

9011-13-6DP, SMA 2000, reaction products with oxycarboxylic acid IT 25085-34-1DP, Acrylic acid-styrene copolymer, reaction condensates products with oxycarboxylic acid condensates 27924-99-8DP, 12-Hydroxystearic acid homopolymer, reaction products with styrene-maleic anhydride copolymer 27925-02-6DP, Ricinoleic acid homopolymer, reaction products with styrene-maleic anhydride copolymer 106209-33-0DP, SMA 1000, reaction products with oxycarboxylic acid condensates 306770-51-4DP, reaction products with oxycarboxylic acid condensates 306770-52-5DP, reaction products with oxycarboxylic acid condensates

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (pigment dispersant; oxycarboxylic acid-modified styrene polymers for pigment dispersants providing water- and abrasion-resistant inks or coatings)

306770-52-5DP, reaction products with oxycarboxylic acid IT condensates

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (pigment dispersant; oxycarboxylic acid-modified styrene polymers for pigment dispersants providing water- and abrasion-resistant inks or coatings)

RN 306770-52-5 HCAPLUS

2-Propenoic acid, ethyl ester, polymer with ethenylbenzene and CN 2-methyl-2-propenoyl isocyanate (9CI) (CA INDEX NAME)

CRN 4474-60-6 CMF C5 H5 N O2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{NCO} \end{array}$$

2 CM

140-88-5 CRN CMF C5 H8 O2

0 EtO-C-CH=CH2

> CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

L23 ANSWER 22 OF 55 HCAPLUS COPYRIGHT 2002 ACS

2000:475708 HCAPLUS AN

133:106335 DN

« applicante ΤI Pigment compositions containing polymers manufactured by atom-transfer-radical polymerization

Auschra, Clemens; Muhlebach, Andreas; Eckstein, Ernst IN

PA Ciba Specialty Chemicals Holding Inc., Switz.

SO PCT Int. Appl., 43 pp. CODEN: PIXXD2

DT Patent

LA English

IC ICM C08F293-00

ICS C08L053-00; C09D153-00; C08F002-38; C08F004-40; C09D011-00

CC 42-6 (Coatings, Inks, and Related Products)

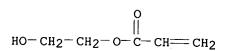
FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_ ----------\_\_\_\_ WO 1999-EP10395 19991227 PΙ WO 2000040630 A1 20000713 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,

```
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           BR 1999-16725
                                                             19991227
                            20010911
     BR 9916725
                                           EP 1999-967013
                                                             19991227
     EP 1155060
                            20011121
                       A1
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
PRAI EP 1998-124860
                            19981231
                       Α
     WO 1999-EP10395
                       W
                            19991227
     Block copolymers prepd. by living polymn. using the atom
AΒ
     -transfer-radical process are useful for prepn. of dispersions
     of (in)org. pigments for coatings and inks. A typical block
     copolymer was manufd. by polymn. of 7 mol Bu acrylate 75 min at 80.degree.
     (exotherm 100-105.degree.) in the presence of CuBr, N, N, N', N'', N''-
     pentamethyldiethylenetriamine (I), and Me 2-bromopropionate, and polymn.
     of 100 mmol 2-dimethylaminoethyl acrylate 80 min at 80.degree. (exotherm
     87.degree.) in the presence of CuBr and I.
     pigment dispersant atom transfer radical
ST
     polymn polymer; pentamethyldiethylenetriamine catalyst
     atom transfer radical polymn acrylate; methyl
     bromopropionate initiator atom transfer radical
     polymn acrylate; copper bromide catalyst atom
     transfer radical polymn acrylate; butyl acrylate
     dimethylaminoethyl acrylate block copolymer dispersant pigment;
     ink pigment polymeric dispersant; coating pigment
     polymeric dispersant
     Alkyl halides
IT
     RL: CAT (Catalyst use); USES (Uses)
        (C1-8, polymn. catalyst; pigment compns. contg.
        polymeric dispersants manufd. by atom-
        transfer-radical polymn.)
IT
     Esters, uses
     RL: CAT (Catalyst use); USES (Uses)
        (C2-8 haloalkyl, polymn. catalyst; pigment compns.
        contg. polymeric dispersants manufd. by atom-
        transfer-radical polymn.)
IT
     Alkyl halides
     RL: CAT (Catalyst use); USES (Uses)
        (aralkyl halides, C6-15, polymn. catalyst; pigment
        compns. contg. polymeric dispersants manufd. by
        atom-transfer-radical polymn.)
     Sulfonyl halides
IT
     Sulfonyl halides
     RL: CAT (Catalyst use); USES (Uses)
         (arenesulfonyl chlorides, polymn. catalyst; pigment
        compns. contg. polymeric dispersants manufd. by
        atom-transfer-radical polymn.)
IT
     Polymerization
         (atom transfer, radical; pigment
        compns. contg. polymeric dispersants manufd. by
        atom-transfer-radical polymn.)
IT
     Polymers, uses
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM
      (Technical or engineered material use); PREP (Preparation); USES (Uses)
         (block, dispersant; pigment compns. contg.
        polymeric dispersants manufd. by atom-
        transfer-radical polymn.)
     Polymerization catalysts
IT
         (block; pigment compns. contg. polymeric
        dispersants manufd. by atom-transfer-radical
        polymn.)
```

```
TΤ
    Polyesters, uses
    RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
        (coating; pigment compns. contg. polymeric
        dispersants manufd. by atom-transfer-radical
        polymn.)
ΙT
    Lactones
    Nitriles, uses
    RL: CAT (Catalyst use); USES (Uses)
        (halo, polymn. catalyst; pigment compns. contq.
        polymeric dispersants manufd. by atom-
        transfer-radical polymn.)
ΙT
     Coating materials
     Dispersing agents
     Inks
       Pigments, nonbiological
        (pigment compns. contg. polymeric
        dispersants manufd. by atom-transfer-radical
        polymn.)
TΤ
    Carbon black, uses
    Chromates
    Molybdates
    Silicates, uses
    RL: MOA (Modifier or additive use); TEM (Technical or engineered material
    use); USES (Uses)
        (pigment; pigment compns. contg.
        polymeric dispersants manufd. by atom-
        transfer-radical polymn.)
IT
    Aromatic compounds
    Aromatic compounds
    RL: CAT (Catalyst use); USES (Uses)
        (sulfonyl chlorides, polymn. catalyst; pigment compns
        . contg. polymeric dispersants manufd. by atom-
        transfer-radical polymn.)
IT
    Group VB element compounds
    RL: MOA (Modifier or additive use); TEM (Technical or engineered material
     use); USES (Uses)
        (vanadates, pigment; pigment compns.
        contg. polymeric dispersants manufd. by atom-
        transfer-radical polymn.)
IT
     282527-38-2P
    RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
    (Preparation); USES (Uses)
        (coating; pigment compns. contg. polymeric
        dispersants manufd. by atom-transfer-radical
        polymn.)
    121264-61-7P, Butyl acrylate-2-hydroxyethyl acrylate block
                 168113-30-2DP, Butyl acrylate-tert-butyl acrylate block
     copolymer
     copolymer, hydrolyzed 168113-30-2P, Butyl acrylate-tert-butyl acrylate
    block copolymer 281198-01-4P, Butyl acrylate-2-
     (dimethylamino)ethyl acrylate block copolymer 281198-02-5P
     281198-03-6P 281198-04-7P
     RL: IMF (Industrial manufacture); MOA (Modifier or additive
     use); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (dispersant; pigment compns. contg.
        polymeric dispersants manufd. by atom-
        transfer-radical polymn.)
IT
     121917-48-4, Acrylic acid-butyl acrylate block copolymer
```

```
RL: MOA (Modifier or additive use); TEM (Technical or engineered material
     use); USES (Uses)
         (dispersant; pigment compns. contg.
        polymeric dispersants manufd. by atom-
        transfer-radical polymn.)
TΨ
     281198-05-8
     RL: TEM (Technical or engineered material use); USES (Uses)
         (pigment compns. contg. polymeric
        dispersants manufd. by atom-transfer-radical
        polymn.)
     1306-23-6, Cadmium sulfide, uses 1308-38-9, Chromium oxide (Cr203), uses
TT
     1309-37-1, Ferric oxide, uses 1314-13-2, Zinc oxide, uses
                                                                   1314-23-4,
     Zirconia, uses 1314-98-3, Zinc sulfide, uses 1317-33-5, Molybdenum
     sulfide (MoS2), uses 1344-28-1, Aluminum oxide, uses
                                                             7429-90-5,
     Aluminum, uses 7631-86-9, Silica, uses 7779-90-0, Zinc phosphate
     7782-42-5, Graphite, uses
                                 13463-67-7, Titania, uses 88949-33-1,
     Irgazin DPP Rubine TR 282118-12-1, Irgazin DPP Rubine FTX 282527-37-1,
     Cinquasia Scarlet RT 390D
     RL: MOA (Modifier or additive use); TEM (Technical or engineered material
     use); USES (Uses)
        (pigment; pigment compns. contq.
        polymeric dispersants manufd. by atom-
        transfer-radical polymn.)
IT
     3030-47-5
                 5445-17-0, Methyl 2-bromopropionate 7787-70-4, Cuprous
     bromide
     RL: CAT (Catalyst use); USES (Uses)
        (polymn. catalyst; pigment compns. contg.
        polymeric dispersants manufd. by atom-
        transfer-radical polymn.)
RE.CNT
              THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Ciba Sc Holding Ag; WO 9962961 A 1999 HCAPLUS
(2) Dsm Nv; EP 0962473 A 1999 HCAPLUS
(3) Du Pont; EP 0218436 A 1987 HCAPLUS
(4) Du Pont; EP 0323181 A 1989 HCAPLUS
(5) Du Pont; EP 0329873 A 1989 HCAPLUS
(6) Du Pont; EP 0518225 A 1992 HCAPLUS
(7) Du Pont; WO 9903938 A 1999 HCAPLUS
(8) Madeleine, D; US 4925765 A 1990 HCAPLUS
(9) Matyjaszewski, K; US 5789487 A 1998 HCAPLUS
(10) Matyjaszewski, K; US 5807937 A 1998 HCAPLUS
     121264-61-7P, Butyl acrylate-2-hydroxyethyl acrylate block
     copolymer 281198-01-4P, Butyl acrylate-2-(dimethylamino)ethyl
     acrylate block copolymer 281198-02-5P 281198-03-6P
     281198-04-7P
     RL: IMF (Industrial manufacture); MOA (Modifier or additive
     use); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (dispersant; pigment compns. contq.
        polymeric dispersants manufd. by atom-
        transfer-radical polymn.)
     121264-61-7 HCAPLUS
RN
CN
     2-Propenoic acid, butyl ester, polymer with 2-hydroxyethyl 2-propenoate,
     block (9CI)
                 (CA INDEX NAME)
          1
     CM
     CRN 818-61-1
     CMF C5 H8 O3
```



CRN 141-32-2 CMF C7 H12 O2

RN 281198-01-4 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with 2-(dimethylamino)ethyl 2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 2439-35-2 CMF C7 H13 N O2

$$\begin{array}{c} \text{\tiny O} \\ \parallel \\ \text{\tiny Me}_2 \text{\tiny N}-\text{\tiny CH}_2-\text{\tiny CH}_2-\text{\tiny O}-\text{\tiny C}-\text{\tiny CH} ==\text{\tiny CH}_2 \end{array}$$

CM 2

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH-} \end{array} \text{CH}_2$$

RN 281198-02-5 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with 2-(dimethylamino)ethyl 2-propenoate, block, compd. with (chloromethyl)benzene (9CI) (CA INDEX NAME)

CM 1

CRN 100-44-7 CMF C7 H7 C1

 $Ph-CH_2-Cl$ 

11/08/2002 Page 160 09/869549 SHOSHO

> CM 2

CRN 281198-01-4

(C7 H13 N O2 . C7 H12 O2)x

PMS CCI

> 3 CM

2439-35-2 CRN CMF C7 H13 N O2

 $\text{Me}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{O}-\overset{\cdot\cdot}{\text{C}}-\text{CH}=\text{CH}_2$ 

CM

141-32-2 CRN CMF C7 H12 O2

0  $n-BuO-C-CH == CH_2$ 

281198-03-6 HCAPLUS 2-Propenoic acid, butyl ester, polymer with 2-(dimethylamino)ethyl RN 2-propenoate, block, compd. with 4-methylbenzenesulfonic acid (9CI) (CA CN INDEX NAME)

CM 1

CRN 104-15-4 CMF C7 H8 O3 S

Me HO3S

> 2 CM

CRN 281198-01-4

(C7 H13 N O2 . C7 H12 O2)x CMF

.CCI PMS

> 3 CM

CRN 2439-35-2 CMF C7 H13 N O2

O  $Me_2N-CH_2-CH_2-O-C-CH=CH_2$ 

> 4 CM

141-32-2 CRN CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH----} \text{CH}_{---} \end{array}$$

281198-04-7 HCAPLUS RN

2-Propenoic acid, butyl ester, polymer with 2-[(1,1dimethylethyl)amino]ethyl 2-propenoate, block (9CI) (CA INDEX NAME) CN

1 CM

CRN 14206-21-4 CMF C9 H17 N O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{t-BuNH-CH}_2\text{-CH}_2\text{-O-C-CH-----} \text{CH}_2 \end{array}$$

2 CM

CRN 141-32-2 CMF C7 H12 O2

$$\overset{\text{O}}{\underset{n-\text{BuO}-}{\parallel}}\text{C-C-CH-CH-CH}_2$$

L23 ANSWER 23 OF 55 HCAPLUS COPYRIGHT 2002 ACS

2000:351213 HCAPLUS AN

Photocurable composition based on urethane acrylate oligomer for DN 132:349070 fully cured pigmented coating, inks, and adhesives TI

Kamata, Hirotoshi; Watanabe, Takeo; Ooga, Kazuhiko; Koshikawa, Toshio IN

Showa Denko Kabushiki Kaisha, Japan

Eur. Pat. Appl., 30 pp. SO

CODEN: EPXXDW

Patent DT

English LA

ICM C08G018-67 ICS C09D175-16 IC

42-10 (Coatings, Inks, and Related Products) CC

FAN.CNT 1

```
APPLICATION NO.
                                                           DATE
                    KIND DATE
    PATENT NO.
                           _____
     ----------
                                                           19991115
                                          EP 1999-122686
                   A2
A3
                            20000524
    EP 1002817
PΙ
                            20010321
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
    EP 1002817
             IE, SI, LT, LV, FI, RO
                                          JP 1999-221866
                                                           19990805
                            20000802
                     A2
     JP 2000212234
                            19981117
PRAI JP 1998-326977
                      Α
                            19990316
     US 1999-124664P P
                           19990805
     JP 1999-221866
                     Α
     A photocurable compn. comprises (A) 100 parts ethylenically
     unsatd. group-contg. compd. of which 5-95% is a urethane (meth)acrylate
AΒ
     oligomer obtained by the reaction of a polyisocyanate having .gtoreq.3
     isocyanate groups with a hydroxyl group-contg. (meth) acrylic acid ester,
     (B) 0.001-5 parts cationic dye having an absorption max. 400-1200 nm and
     represented by formula (1) D+.A1-, where D+ represents a cation having an
     absorption max. 400-1200 nm, and Al- represents an anion, and (C) 0.005-10
     parts quaternary borate-type compd. represented by R1-4B-.Z+, where R1-4 =
     alkyl, aryl, aralkyl, alkenyl, alkynyl, silyl, a heterocyclic group or a
     halogen, and Z+ represents a cation. A binder for a white coating paint
     was obtained by polymn. of Sumidur N3500 388, Blenmer AP-400 325,
     2-hydroxyethyl acrylate 97, and Aronix M-305 248 parts in the presence of
     dibutyltin dilaurate.
     photocurable coating polymer compn; dye cationic photocurable
     compn; borate quaternary sensitizer photocuring; acrylate polymer
 ST
      coating photocurable; urethane acrylate coating photocurable
 IT
         (cationic; photocurable compn. based on urethane acrylate
         oligomer for fully cured pigmented coating, inks, and adhesives)
      Crosslinking catalysts
         (photochem., cationic dye-quaternary borates; photocurable
 IT
         compn. based on urethane acrylate oligomer for fully cured
         pigmented coating, inks, and adhesives)
      Coating materials
         (photocurable; photocurable compn. based on urethane acrylate
 ΙT
         oligomer for fully cured pigmented coating, inks, and adhesives)
      RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
      Polyurethanes, uses
 IT
      engineered material use); PREP (Preparation); USES (Uses)
         (polyoxyalkylene-, acrylates, oligomeric; photocurable compn.
         based on urethane acrylate oligomer for fully cured pigmented coating,
         inks, and adhesives)
      269734-26-1P 269734-27-2P 269734-28-3P
  ΙT
      269734-29-4P 269734-30-7P 269734-41-0P
       269734-42-1P 269734-43-2P 269734-44-3P
       269745-29-1P 269745-30-4P 269745-31-5P
       269745-32-6P 269745-33-7P 269745-39-3P
       269745-40-6P 269745-41-7P 269745-42-8P
       RL: IMF (Industrial manufacture); RCT (Reactant); PREP
       (Preparation); RACT (Reactant or reagent)
          (binder; photocurable compn. based on urethane acrylate
          oligomer for fully cured pigmented coating, inks, and
          adhesives)
                                                          193146-98-4
                                            115449-80-4
                               27564-02-9
       3648-36-0 6441-82-3
  IT
       269734-40-9
       RL: CAT (Catalyst use); USES (Uses)
           (cationic dye; photocurable compn. based on urethane acrylate
          oligomer for fully cured pigmented coating, inks, and adhesives)
       269734-31-8P 269734-32-9P 269734-33-0P
  IT
       269734-35-2P 269734-36-3P 269734-37-4P
```

```
269734-38-5P 269734-39-6P 269745-34-8P
269745-35-9P 269745-36-0P 269745-37-1P
269745-38-2P
```

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES

(coating; photocurable compn. based on urethane acrylate oligomer for fully cured pigmented coating, inks, and adhesives)

120307-06-4, Tetrabutylammonium butyltriphenylborate 189947-86-2 IT 219125-19-6 211675-36-4

RL: CAT (Catalyst use); USES (Uses)

(photocurable compn. based on urethane acrylate oligomer for fully cured pigmented coating, inks, and adhesives)

269734-26-1P 269734-27-2P 269734-28-3P IT 269734-29-4P 269734-30-7P 269734-41-0P 269734-42-1P 269734-43-2P 269734-44-3P 269745-29-1P 269745-30-4P 269745-31-5P

269745-32-6P 269745-33-7P 269745-39-3P 269745-40-6P 269745-41-7P 269745-42-8P RL: IMF (Industrial manufacture); RCT (Reactant); PREP

(Preparation); RACT (Reactant or reagent) (binder; photocurable compn. based on urethane acrylate oligomer for fully cured pigmented coating, inks, and adhesives)

269734-26-1 HCAPLUS RN

2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-CN propanediyl ester, polymer with 2-hydroxyethyl 2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and Sumidur N 3500 (9CI) (CA INDEX NAME)

CM 1

127464-53-3 CRN CMF Unspecified CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 50858-51-0 (C3 H6 O)n C3 H4 O2 CMF IDS, PMS CCI

$$_{\rm H_2C}$$
 = CH - C - (C3H6) -  $_{\rm n}$  OH

CM 3

CRN 3524-68-3 CMF C14 H18 O7

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array} \text{CH}_2$$

269734-27-2 HCAPLUS RN

2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-CN propanediyl ester, polymer with 2-hydroxypropyl 2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and Sumidur N 3500 (9CI) (CA INDEX NAME)

CM

127464-53-3 CRN

CMF Unspecified

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM

50858-51-0 CRN

(C3 H6 O)n C3 H4 O2 CMF

CCI IDS, PMS

$$H_2C = CH - C - C - C_3H_6) - n$$
 OH

CM 3

CRN 3524-68-3 CMF C14 H18 O7

CRN 999-61-1 CMF C6 H10 O3

$$\begin{array}{c|c} \text{OH} & \text{O} \\ | & || \\ \text{Me-CH-CH}_2\text{-O-C-CH} \end{array} \text{CH}_2$$

RN 269734-28-3 HCAPLUS

CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3propanediyl ester, polymer with 2-hydroxyethyl 2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and Sumidur N 3200 (9CI) (CA INDEX NAME)

CM1

CRN 110539-63-4

CMF Unspecified

CCI MAN

## \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM

CRN 50858-51-0

CMF (C3 H6 O)n C3 H4 O2

CCI IDS, PMS

$$H_2C = CH - C - O - (C_3H_6) - OH$$

CM

CRN 3524-68-3 C14 H18 O7 CMF

CRN 818-61-1 CMF C5 H8 O3

269734-29-4 HCAPLUS RN

2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-CN propanediyl ester, polymer with 2-hydroxyethyl 2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and Sumidur HT (9CI) (CA INDEX NAME)

CM1

92529-50-5 CRN Unspecified CMF

MAN CCI

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM

50858-51-0 CRN

(C3 H6 O)n C3 H4 O2 CMF

IDS, PMS CCI

$$_{\rm H_2C} = _{\rm CH} = _{\rm C} = _{\rm C} = _{\rm C} = _{\rm C_3H_6} = _{\rm C_3H_6} = _{\rm C} = _{\rm C_3H_6} = _{\rm C} = _{\rm C} = _{\rm C_3H_6} = _{\rm C} = _{\rm C_3H_6} =$$

3 CM

3524-68-3 CRN CMF C14 H18 O7

CRN 818-61-1 CMF C5 H8 O3

RN269734-30-7 HCAPLUS

CN Hexanoic acid, 2,6-diisocyanato-, 2-isocyanatoethyl ester, (2S)-, polymer with 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1-oxo-2propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

77704-50-8 CRN CMF C11 H13 N3 O5

Absolute stereochemistry.

2 CM

CRN 50858-51-0 CMF (C3 H6 O)n C3 H4 O2 CCI IDS, PMS

$$H_2C = CH - C - C - C_3H_6) - I_n OH$$

CM 3 CRN 3524-68-3 CMF C14 H18 O7

CM 4

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} {\rm O} \\ || \\ {\rm HO-CH_2-CH_2-O-C-CH} \end{array}$$

RN 269734-41-0 HCAPLUS

2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-hydroxyethyl 2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 50858-51-0 CMF (C3 H6 O)n C3 H4 O2 CCI IDS, PMS

$$H_2C = CH - C - O - (C_3H_6) - OH$$

CM 2

CRN 3779-63-3 CMF C24 H36 N6 O6 OCN- (CH<sub>2</sub>) 6 O (CH<sub>2</sub>) 6-NCO

CM 3

CRN 3524-68-3

CMF C14 H18 O7

CM 4

CRN 818-61-1 CMF C5 H8 O3

 $\begin{array}{c} {\rm O} \\ || \\ {\rm HO-CH_2-CH_2-O-C-CH} \end{array}$ 

RN 269734-42-1 HCAPLUS

CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-hydroxypropyl 2-propenoate,
.alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)]
and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione
(9CI) (CA INDEX NAME)

CM 1

CRN 50858-51-0

CMF (C3 H6 O)n C3 H4 O2

CCI IDS, PMS

 $H_2C = CH - C - (C_3H_6) - n OH$ 

3779-63-3 CRN C24 H36 N6 O6 CMF

3 CM

3524-68-3 CRN C14 H18 O7 CMF

CM

999-61-1 CRN C6 H10 O3 CMF

RN

2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-269734-43-2 HCAPLUS propanediyl ester, polymer with 2-hydroxyethyl 2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and N, N', 2-tris(6-isocyanatohexyl) imidodicarbonic diamide (9CI) (CA INDEX NAME)

CM 1

CN

50858-51-0 CRN (C3 H6 O)n C3 H4 O2 CMF IDS, PMS CCI

$$H_2C = CH - C - CO_1C_3H_6) - O_1C_3H_6$$

CRN 4035-89-6 CMF C23 H38 N6 O5

$$\begin{array}{c|c} & & & & & & & & \\ & & & & & & & \\ & & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

3 CM

3524-68-3 CRN CMF C14 H18 O7

CM

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH-----} \text{CH}_2 \end{array}$$

2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-RNpropanediyl ester, polymer with 2-hydroxyethyl 2-propenoate, LTI CN (isocyanate) and .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

1 CM

183906-32-3 CRN Unspecified CMF CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

2 CM

50858-51-0 CRN

(C3 H6 O)n C3 H4 O2 CMF

IDS, PMS CCI

$$_{\rm H_2C} = _{\rm CH-C} = _{\rm CH-C} = _{\rm CH_6} = _{\rm$$

CM 3

CRN 3524-68-3 CMF C14 H18 O7

CM

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} {\rm O} \\ || \\ {\rm HO-CH_2-CH_2-O-C-CH=\!\!\!\!-} \, {\rm CH_2} \end{array}$$

269745-29-1 HCAPLUS

Hexanoic acid, 6-hydroxy-, 6-oxo-6-[2-[(1-oxo-2-propenyl)oxy]ethoxy]hexyl RN ester, polymer with 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1-CN oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and Sumidur N 3500 (9CI) (CA INDEX NAME)

1 CM

127464-53-3 CRN

Unspecified CMF

PMS, MAN CCI

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

2 CM

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CRN 80413-52-1 CMF C17 H28 O7

3 CM

3524-68-3 CRN CMF C14 H18 O7

CM 4

CRN 818-61-1 CMF C5 H8 O3

$$_{
m HO-CH_2-CH_2-O-C-CH==-CH_2}^{
m O}$$

Hexanoic acid, 6-hydroxy-, 6-oxo-6-[2-[(1-oxo-2-propenyl)oxy]ethoxy]hexyl RN ester, polymer with 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-CN 1,3-propanediyl di-2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.hydroxypoly[oxy(methyl-1,2-ethanediyl)] and Sumidur N 3500 (9CI) (CA INDEX NAME)

CM 1

127464-53-3 CRN CMF Unspecified CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

2 CM

80413-52-1 CRN C17 H28 O7 CMF

$$_{\rm H_2C}$$
 —  $_{\rm CH-C-O-CH_2-CH_2-O-C-}$  ( $_{\rm CH_2}$ )  $_{\rm 5-O-C-}$  ( $_{\rm CH_2}$ )  $_{\rm 5-OH}$ 

50858-51-0 CRN

(C3 H6 O)n C3 H4 O2 CMF

IDS, PMS CCI

$$H_2C = CH - C - C - C_3H_6) - I_n OH$$

CM

3524-68-3 CRN C14 H18 O7 CMF

269745-31-5 HCAPLUS

RNHexanoic acid, 6-hydroxy-, 6-oxo-6-[2-[(1-oxo-2-propenyl)oxy]ethoxy]hexyl CN ester, polymer with 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and Sumidur N 3200 (9CI) (CA INDEX NAME)

CM1

110539-63-4 CRN

Unspecified CMF

MAN CCI

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

2 CM

80413-52-1 CRN

C17 H28 O7 CMF

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3524-68-3 CRN CMF C14 H18 O7

4 CM

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH----} \text{CH}_2 \end{array}$$

269745-32-6 HCAPLUS RN

Hexanoic acid, 6-hydroxy-, 6-oxo-6-[2-[(1-oxo-2-propenyl)oxy]ethoxy]hexyl ester, polymer with 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1-CN oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and Sumidur HT (9CI) (CA INDEX NAME)

CM 1

92529-50-5 CRN CMF Unspecified CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM

CRN 80413-52-1 C17 H28 O7 CMF

3 CM

3524-68-3 CRN C14 H18 O7 CMF

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{--CH}_2\text{--O-C-CH} \end{array} \text{CH}_2$$

269745-33-7 HCAPLUS RN

Hexanoic acid, 2,6-diisocyanato-, 2-isocyanatoethyl ester, (2S)-, polymer with 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1-oxo-2-) CN propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 6-oxo-6-[2-[(1-oxo-2-propenyl)oxy]ethoxy]hexyl 6-hydroxyhexanoate (9CI) (CA INDEX NAME)

CM1

CRN 80413-52-1 CMF C17 H28 O7

2 CM

CRN 77704-50-8 C11 H13 N3 O5 CMF

Absolute stereochemistry.

CM

CRN 3524-68-3

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CMF C14 H18 O7

CM 4

CRN 818-61-1 CMF C5 H8 O3

$$\begin{smallmatrix} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH----} \text{CH}_2 \end{smallmatrix}$$

RN 269745-39-3 HCAPLUS

CN Hexanoic acid, 6-hydroxy-, 6-oxo-6-[2-[(1-oxo-2-propenyl)oxy]ethoxy]hexyl ester, polymer with 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 80413-52-1 CMF C17 H28 O7

CM 2

CRN 3779-63-3 CMF C24 H36 N6 O6

CRN 3524-68-3 CMF C14 H18 O7

CM 4

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array} \text{CH}_2$$

RN 269745-40-6 HCAPLUS

Hexanoic acid, 6-hydroxy-, 6-oxo-6-[2-[(1-oxo-2-propenyl)oxy]ethoxy]hexyl ester, polymer with 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 80413-52-1 CMF C17 H28 O7

CM 2

CRN 50858-51-0 CMF (C3 H6 O)n C3 H4 O2

CCI IDS, PMS

$$H_2C = CH - C = O - (C_3H_6) = OH$$

CRN 3779-63-3 CMF C24 H36 N6 O6

CM 4

CRN 3524-68-3 CMF C14 H18 O7

RN 269745-41-7 HCAPLUS

CN Hexanoic acid, 6-hydroxy-, 6-oxo-6-[2-[(1-oxo-2-propenyl)oxy]ethoxy]hexyl ester, polymer with 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and N,N',2-tris(6-isocyanatohexyl)imidodicarbonic diamide (9CI) (CA INDEX NAME)

CM 1

CRN 80413-52-1 CMF C17 H28 O7

CM 2

CRN 4035-89-6 CMF C23 H38 N6 O5

$$\begin{array}{c|c} & \text{O} & \\ || & \\ \text{O} & \text{C-NH-} (\text{CH}_2) \text{6-NCO} \\ || & | & \\ | & | & \\ \text{OCN-} (\text{CH}_2) \text{6-NH-C-N-} (\text{CH}_2) \text{6-NCO} \end{array}$$

3524-68-3 CRN CMF C14 H18 O7

CM

CRN 818-61-1 CMF C5 H8 O3

Hexanoic acid, 6-hydroxy-, 6-oxo-6-[2-[(1-oxo-2-propenyl)oxy]ethoxy]hexyl RN ester, polymer with 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1-CN oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and LTI (isocyanate) (9CI) (CA INDEX NAME)

1 CM

183906-32-3 CRN Unspecified CMF PMS, MAN CCI

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

2 CM

CRN 80413-52-1 CMF C17 H28 O7

$$\begin{array}{c|cccc}
O & O & O \\
\parallel & \parallel & \parallel \\
H_2C & = CH - C - O - CH_2 - CH_2 - O - C - (CH_2)_5 - O - C - (CH_2)_5 - OH
\end{array}$$

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3524-68-3 CRN CMF C14 H18 O7

4 CM

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array} \text{CH}_2$$

269734-31-8P 269734-32-9P 269734-33-0P IT 269734-35-2P 269734-36-3P 269734-37-4P 269734-38-5P 269734-39-6P 269745-34-8P 269745-35-9P 269745-36-0P 269745-37-1P 269745-38-2P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coating; photocurable compn. based on urethane acrylate oligomer for fully cured pigmented coating, inks, and adhesives)

269734-31-8 HCAPLUS RN

2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3propanediyl ester, polymer with N-ethenylacetamide, .alpha.-hydro-.omega.-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), 2-hydroxyethyl 2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and Sumidur N 3500 (9CI) (CA INDEX NAME)

CM 1

CN

CRN 127464-53-3 CMF Unspecified CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

50858-51-0 CRN (C3 H6 O)n C3 H4 O2 CMF

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CCI IDS, PMS

$$H_2C = CH - C = O - (C_3H_6) = OH$$

CM 3

CRN 28961-43-5

CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H2O O6

CCI PMS

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$$H_{2}C = CH - C - O = CH_{2} - CH_{2} - O - CH_{2} - CH$$

PAGE 1-B

$$-CH_2 - \frac{0}{n}O - C - CH = CH_2$$

CM 4

CRN 5202-78-8 CMF C4 H7 N O

AcNH-CH-CH-CH2

CM 5.

CRN 3524-68-3 CMF C14 H18 O7 Page 183

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6 CM

CRN 818-61-1 C5 H8 O3 CMF

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array}$$

269734-32-9 HCAPLUS RN

2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-CN propanediyl ester, polymer with 1-ethenylhexahydro-2H-azepin-2-one, .alpha.-hydro-.omega.-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), 2-hydroxyethyl 2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and Sumidur N 3500 (9CI) (CA INDEX NAME)

CM

127464-53-3 CRN Unspecified CMF CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM

50858-51-0 CRN (C3 H6 O)n C3 H4 O2 CMF CCI IDS, PMS

$$_{\rm H_2C} = _{\rm CH-C} = _{\rm C} = _{\rm CH_6} = _{\rm C} = _$$

3 CM

28961-43-5 CRN (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H2O O6 CMF CCI PMS

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PAGE 1-B

CM

CRN 3524-68-3 CMF C14 H18 O7

5 CM

CRN 2235-00-9 CMF C8 H13 N O

CM6 CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array}$$

RN 269734-33-0 HCAPLUS

2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with .alpha.-hydro-.omega.-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), 2-hydroxyethyl 2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)], 2-phenoxyethyl 2-propenoate and Sumidur N 3500 (9CI) (CA INDEX NAME)

CM 1

CRN 127464-53-3 CMF Unspecified CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 50858-51-0 CMF (C3 H6 O)n C3 H4 O2 CCI IDS, PMS

$$_{\rm H_2C} = _{\rm CH-C} = _{\rm$$

CM 3

CRN 48145-04-6 CMF C11 H12 O3

CM 4

CRN 28961-43-5 CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H2O O6 CCI PMS

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PAGE 1-B

$$-CH_2 \xrightarrow{n} O - C - CH = CH_2$$

$$-CH_2$$
  $0$   $C$   $CH$   $CH_2$ 

CM 5

CRN 3524-68-3 CMF C14 H18 O7

CM 6

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c|c} & & & & & & & \\ & & & & & & \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} & & & \text{CH}_2 \end{array}$$

RN 269734-35-2 HCAPLUS

CN 2-Propenoic acid, [2-ethyl-2-[[methyl-2-[(1-oxo-2-propenyl)oxy]ethoxy]methyl]-1,3-propanediyl]bis[oxy(methyl-2,1-ethanediyl)] ester, polymer with N-ethenylformamide, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 2-hydroxypropyl 2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.-

hydroxypoly[oxy(methyl-1,2-ethanediyl)] and Sumidur N 3500 (9CI) (CA

CM 1

CRN 127464-53-3 CMF Unspecified CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

2 CM

CRN 100289-84-7 CMF C24 H38 O9 CCI IDS

$$3 (D1-Me)$$

3 CM

CRN 50858-51-0 CMF (C3 H6 O)n C3 H4 O2 CCI IDS, PMS

$$H_2C = CH - C - CO - (C_3H_6) - OH$$

CM

CRN 13162-05-5 CMF C3 H5 N O

 $_{\rm H2C} = _{\rm CH-NH-CH} = 0$ 

5 CM

CRN 3524-68-3 CMF C14 H18 O7

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999-61-1 CRN CMF C6 H10 O3

$$\begin{array}{c|c} \text{OH} & \text{O} \\ | & || \\ \text{Me-CH-CH}_2\text{-O-C-CH} \end{array} \text{CH}_2$$

269734-36-3 HCAPLUS RN

2-Propenoic acid, 1,6-hexanediyl ester, polymer with .alpha.-hydro-.omega.-CN [(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3propanediyl di-2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.hydroxypoly[oxy(methyl-1,2-ethanediyl)] and Sumidur N 3500 (9CI) (CA INDEX NAME)

CM 1

127464-53-3 CRN Unspecified CMF PMS, MAN CCI

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

2 CM

50858-51-0 CRN CMF (C3 H6 O)n C3 H4 O2 CCI IDS, PMS

$$_{\rm H_2C} = _{\rm CH-C} = _{\rm C} = _{\rm CH_6} = _{\rm C} = _{\rm C_3H_6} = _{\rm C} = _{\rm C$$

3 CM

CRN 28961-43-5 (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H2O O6 CMF CCI **PMS** 

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$$-CH_{2} \xrightarrow{0} O - C - CH = CH_{2}$$

$$-CH_{2} \xrightarrow{0} O - C - CH = CH_{2}$$

CM 4

CRN 13048-33-4 CMF C12 H18 O4

$$_{\rm H_2C} = _{\rm CH-C-O-(CH_2)_6-O-C-CH} = _{\rm CH_2}^{\rm O}$$

CM 5

CRN 3524-68-3 CMF C14 H18 O7

CM 6

CRN 818-61-1 CMF C5 H8 O3

$$_{
m HO-CH_2-CH_2-O-C-CH==CH_2}^{
m O}$$

269734-37-4 HCAPLUS RN

2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3propanediyl ester, polymer with N-ethenylacetamide, 2-hydroxyethyl CN 2-propenoate, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3propanediyl di-2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.hydroxypoly[oxy(methyl-1,2-ethanediyl)] and Sumidur N 3200 (9CI) INDEX NAME)

1 CM

110539-63-4 CRN Unspecified CMF CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 50858-51-0 (C3 H6 O)n C3 H4 O2 CMF CCI IDS, PMS

3 CM

15625-89-5 CRN CMF C15 H20 O6

4 CM

CRN 5202-78-8 C4 H7 N O CMF

AcNH-CH=CH2

CRN 3524-68-3 CMF C14 H18 O7

6 CM

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array}$$

269734-38-5 HCAPLUS RN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-CN propanediyl ester, polymer with 2-hydroxyethyl 2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2ethanediyl)], .alpha.,.alpha.',.alpha.''-1,2,3-propanetriyltris[.omega.-[(1-oxo-2-propenyl)oxy]poly[oxy(methyl-1,2-ethanediyl)]], Sumidur HT and (tetrahydro-2-furanyl)methyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 92529-50-5 CMF Unspecified CCI MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

2 CM

CRN 52408-84-1 (C3 H6 O)n (C3 H6 O)n (C3 H6 O)n C12 H14 O6 CMF CCI IDS, PMS

PAGE 1-A

$$_{\text{H}_2\text{C}} = _{\text{CH}_2} =$$

PAGE 1-B

$$-(C_3H_6) \xrightarrow{0}_{n} O - C - CH = CH_2$$

$$- (C_3H_6) \xrightarrow{n} O - C - CH = CH_2$$

CM

CRN 50858-51-0 CMF (C3 H6 O)n C3 H4 O2 CCI IDS, PMS

CM 4

CRN 3524-68-3 CMF C14 H18 O7

5 CM

CRN 2399-48-6 CMF C8 H12 O3

$$O.$$
  $CH_2-O-C-CH=CH_2$ 

818-61-1 CRN C5 H8 O3 CMF

$$_{\text{HO-CH}_2-\text{CH}_2-\text{O-C-CH}}^{\text{O}}$$

269734-39-6 HCAPLUS RN

Hexanoic acid, 2,6-diisocyanato-, 2-isocyanatoethyl ester, (2S)-, polymer CN with Ebecryl 7100, [2-ethyl-2-[[methyl-2-[(1-oxo-2propenyl)oxy]ethoxy]methyl]-1,3-propanediyl]bis[oxy(methyl-2,1ethanediyl)] di-2-propenoate, 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] di-2-propenoate and .alpha.-(1-oxo-2-propenyl)-.omega.hydroxypoly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM

135991-03-6 CRN Unspecified CMF PMS, MAN CCI

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM

CRN 100289-84-7 C24 H38 O9 CMF CCI IDS

3 (D1-Me)

CM

CRN 77704-50-8 CMF C11 H13 N3 O5

Absolute stereochemistry.

CM 4

CRN 50858-51-0

CMF (C3 H6 O)n C3 H4 O2

CCI IDS, PMS

$$_{\rm H_2C} = _{\rm CH} - _{\rm C} - _{\rm C} - _{\rm C_3H_6} - _{\rm C_3H_6} - _{\rm C_1} - _{\rm C_1$$

CM 5

CRN 42978-66-5

CMF C15 H24 O6

CCI IDS

$$3 (D1-Me)$$

CM 6

CRN 3524-68-3 CMF C14 H18 O7

818-61-1 CRN CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH----} \text{CH}_2 \end{array}$$

269745-34-8 HCAPLUS RN

Hexanoic acid, 6-hydroxy-, 6-oxo-6-[2-[(1-oxo-2-propenyl)oxy]ethoxy]hexyl CN ester, polymer with 1-ethenyl-2-pyrrolidinone, 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3propanediyl di-2-propenoate, .alpha., .alpha., .alpha.'.-1,2,3propanetriyltris[.omega.-[(1-oxo-2-propenyl)oxy]poly[oxy(methyl-1,2ethanediyl)]] and Sumidur N 3500 (9CI) (CA INDEX NAME)

CM 1

127464-53-3 CRN Unspecified CMF PMS, MAN CCI

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

2 CM

CRN 80413-52-1 C17 H28 O7 CMF

$$_{
m H_2C}=$$
  $_{
m CH-C-O-CH_2-CH_2-O-C-}$  ( $_{
m CH_2}$ )  $_{
m 5-O-C-}$  ( $_{
m CH_2}$ )  $_{
m 5-OH}$ 

CM 3

52408-84-1

(C3 H6 O)n (C3 H6 O)n (C3 H6 O)n C12 H14 O6 CMF

IDS, PMS CCI

$$CH_2 - CH_2 -$$

PAGE 1-A

CRN 3524-68-3 CMF C14 H18 O7

CM 5

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{--CH}_2\text{--O-C-CH} \end{array} \text{CH}_2$$

CM 6

CRN 88-12-0 CMF C6 H9 N O

RN 269745-35-9 HCAPLUS
CN Hexanoic acid, 6-hydroxy-, 6-oxo-6-[2-[(1-oxo-2-propenyl)oxy]ethoxy]hexyl ester, polymer with N-ethenylformamide, .alpha.-hydro-.omega.-[(1-oxo-2-propenyl)oxy][poly(oxy-1,2-ethanediyl)] ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, .alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and Sumidur N

SHOSHO 09/869549 Page 197 11/08/2002

3500 (9CI) (CA INDEX NAME)

CM 1

CRN 127464-53-3

CMF Unspecified

CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 80413-52-1 CMF C17 H28 O7

CM 3

CRN 50858-51-0

CMF (C3 H6 O)n C3 H4 O2

CCI IDS, PMS

$$H_2C = CH - C - (C_3H_6) - I_n OH$$

CM 4

CRN 28961-43-5

CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6

CCI PMS

PAGE 1-A

$$\begin{array}{c|c} & & & & \text{CH}_2 & & \text{CH}_2 & & \text{O} \\ & & & & & & \\ \text{H}_2\text{C} = \text{CH} - \text{C} - \text{O} & & \text{CH}_2 - \text{CH}_2 - \text{O} \\ & & & & & \\ \text{CH}_2 & & & & \text{CH}_2 - \text{CH}_2 - \\ & & & & \\ \text{CH}_2 & & & & \text{O} - \text{CH}_2 - \\ \end{array}$$

$$-CH_2$$
  $0$   $C$   $CH$   $CH_2$ 

$$-CH_2$$
  $0$   $C-CH$   $CH_2$ 

13162-05-5 CRN C3 H5 N O CMF

 $H_2C = CH - NH - CH = O$ 

6 CM

CRN 3524-68-3 CMF C14 H18 O7

269745-36-0 HCAPLUS RN

Hexanoic acid, 6-hydroxy-, 6-oxo-6-[2-[(1-oxo-2-propenyl)oxy]ethoxy]hexyl CN ester, polymer with Ebecryl 7100, [2-ethyl-2-[[methyl-2-[(1-oxo-2propenyl)oxy]ethoxy]methyl]-1,3-propanediyl]bis[oxy(methyl-2,1ethanediyl)] di-2-propenoate, 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 2-phenoxyethyl 2-propenoate and Sumidur N 3200 (9CI) (CA INDEX NAME)

CM 1

135991-03-6 CRN Unspecified CMF PMS, MAN CCI

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM

110539-63-4 CRN CMF Unspecified

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SHOSHO 09/869549 Page 199 11/08/2002

CCI MAN

## \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 100289-84-7

CMF C24 H38 O9

CCI IDS

$$\begin{array}{c} O \\ O \\ H_2C = CH - C - O - CH_2 - CH_2 - O - CH_2 - CH_2$$

## 3 (D1-Me)

CM 4

CRN 80413-52-1

CMF C17 H28 O7

CM 5

CRN 48145-04-6

CMF C11 H12 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{PhO--CH}_2\text{--CH}_2\text{--O--C--CH} \end{array}$$

CM 6

CRN 3524-68-3 CMF C14 H18 O7

CRN 818-61-1 CMF C5 H8 O3

RN 269745-37-1 HCAPLUS

Hexanoic acid, 6-hydroxy-, 6-oxo-6-[2-[(1-oxo-2-propenyl)oxy]ethoxy]hexyl CN ester, polymer with 1,2-ethanediylbis(oxy-2,1-ethanediyl) di-2-propenoate, 1-ethenyl-2-pyrrolidinone, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3propanediyl di-2-propenoate, 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and Sumidur HT (9CI) (CA INDEX NAME)

CM 1

CRN 92529-50-5 Unspecified CMF

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM

CRN 80413-52-1 C17 H28 O7 CMF

3 CM

15625-89-5 CRN C15 H20 O6 CMF

CRN 3524-68-3 CMF C14 H18 O7

5 CM

CRN 1680-21-3 CMF C12 H18 O6

$$\begin{array}{c} \text{O} \\ \text{H}_2\text{C} = \text{CH} - \text{C} - \text{O} - \text{CH}_2 - \text{CH}_2 - \text{O} + \text{CH}_2 - \text{CH}_2$$

CM 6

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array} \text{CH}_2$$

7 CM

CRN 88-12-0 CMF C6 H9 N O

269745-38-2 HCAPLUS RN

Hexanoic acid, 2,6-diisocyanato-, 2-isocyanatoethyl ester, (2S)-, polymer CN with 1-ethenylhexahydro-2H-azepin-2-one, 2-ethyl-2-[[(1-oxo-2propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 2-hydroxyethyl 2-propenoate, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3propanediyl di-2-propenoate and 6-oxo-6-[2-[(1-oxo-2propenyl)oxy]ethoxy]hexyl 6-hydroxyhexanoate (9CI) (CA INDEX NAME)

11/08/2002

CM

CRN 80413-52-1 CMF C17 H28 O7

2 CM

77704-50-8 CRN C11 H13 N3 O5 CMF

Absolute stereochemistry.

CM 3

15625-89-5 CRN C15 H20 O6 CMF

09/869549 Page 203 SHOSHO

11/08/2002

CM

3524-68-3 CRN CMF C14 H18 O7

CM 5

CRN 2235-00-9 CMF C8 H13 N O

6 CM

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} {\rm O} \\ || \\ {\rm HO-CH_2-CH_2-O-C-CH} \end{array}$$

L23 ANSWER 24 OF 55 HCAPLUS COPYRIGHT 2002 ACS

2000:216101 HCAPLUS AN

132:258159 DN

Pigment dispersing agent and its photosensitive, pigmented ΤI composition

Kiyohara, Yoshiko; Ando, Masayuki IN

Dainippon Printing Co., Ltd., Japan PΑ

Jpn. Kokai Tokkyo Koho, 7 pp. SO

CODEN: JKXXAF

Patent DT

Japanese LA

ICM C09D017-00 C08F002-50; C08F220-30; C08F220-34; C08F290-06; C09D007-12; IC G02B005-20; G02B005-22; C09D004-00; C09D011-02; G03F007-004 ICS

74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other CC Reprographic Processes) Section cross-reference(s): 42

```
FAN.CNT 1
                                          APPLICATION NO. DATE
                    KIND DATE
    PATENT NO.
                                          _______
     JP 2000095992 A2 20000404 JP 1998-267588 19980922
     The pigment dispersing agent comprise a copolymer contg. a monomer with
PΙ
     heterocyclic hydrocarbon bearing amino or basic cyclic N and a monomer
AΒ
     bearing a polycaprolactone framework shown as CH2:CR1CO2R2O[C(O)(CH2)50]nH
     (R1 = H, Me; R2 = C1-10 alkylene which may be substituted with halogen; n
     = 1-100). The photosensitive compn. contain an alk.-sol.
     binder, a photopolymerizable monomer, a photopolymn. initiator, a
     dispersing agent contg. the above copolymer, a pigment, and a solvent.
     The compn. is esp. suitable for a UV- and energy beam-curable
     coating, ink, solder resist, and color filter manufg.
     pigment dispersing agent polycaprolactone acrylate copolymer; amino
     hetrerocyclic hydrocarbon polycaprolactone copolymer dispersant; basic
ST
     cyclic nitrogen hydrocarbon polycaprolactone copolymer; dimethylaminoethyl
     methacrylate polycaprolactone monoacrylate copolymer pigment dispersant;
     photoresist pigment dispersing agent acrylic polycaprolactone; color
     filter photosensitive compn pigment dispersant; coating
     polycaprolactone acrylate copolymer pigment dispersant; ink
     polycaprolactone acrylate copolymer pigment dispersant
     RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
      Polyesters, preparation
 IT
      use); PREP (Preparation); USES (Uses)
         (acrylic, graft; polycaprolactone acrylate-graft pigment dispersing
         agent and its photosensitive, pigmented compn. for color
         filter, photoresist, ink, and coating)
         (polycaprolactone acrylate-graft pigment dispersing agent and its
      Photoresists
 IT
         photosensitive, pigmented compn. for color filter,
         photoresist, ink, and coating)
      RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
 IT
      use); PREP (Preparation); USES (Uses)
         (polycaprolactone acrylate-graft pigment dispersing agent and
         its photosensitive, pigmented compn. for color
         filter, photoresist, ink, and coating)
      119313-12-1, 2-Benzyl-2-dimethylamino-1-(4-morpholinophenyl)butanone
 ΙT
      RL: CAT (Catalyst use); USES (Uses)
          (resist component; polycaprolactone acrylate-graft pigment dispersing
         agent and its photosensitive, pigmented compn. for color
         filter, photoresist, ink, and coating)
       60506-81-2, Dipentaerythritol pentaacrylate
       RL: TEM (Technical or engineered material use); USES (Uses)
  IT
          (resist component; polycaprolactone acrylate-graft pigment dispersing
          agent and its photosensitive, pigmented compn. for color
          filter, photoresist, ink, and coating)
       RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
  IT
       use); PREP (Preparation); USES (Uses)
          (polycaprolactone acrylate-graft pigment dispersing agent and
          its photosensitive, pigmented compn. for color
          filter, photoresist, ink, and coating)
       262604-08-0 HCAPLUS
       2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with
  RN
       2-isocyanatoethyl 2-methyl-2-propenoate and .alpha.-[2-[(2-methyl-1-oxo-2-
  CN
       propenyl)oxy]ethyl]-.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)] (9CI)
       (CA INDEX NAME)
```

CRN 81984-60-3

(C6 H10 O2)n C6 H10 O3 CMF

CCI

2 CM

CRN 30674-80-7 CMF C7 H9 N O3

$$^{\mathrm{H_2C}}$$
 O  $^{\parallel}$   $^{\parallel}$   $^{\parallel}$   $^{\mathrm{Me-C-C-O-CH_2-CH_2-NCO}}$ 

3 CM

CRN 2867-47-2 CMF C8 H15 N O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & \parallel & \parallel \\ \text{Me}_2 \text{N} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

L23 ANSWER 25 OF 55 HCAPLUS COPYRIGHT 2002 ACS

2000:216021 HCAPLUS AN

Pigment dispersing agent and photosensitive coloring composition DN ΤI

Kiyohara, Kinko; Ando, Masayuki IN

Dainippon Printing Co., Ltd., Japan PΑ

Jpn. Kokai Tokkyo Koho, 6 pp. SO CODEN: JKXXAF

Patent DT

Japanese LA

IC

ICS B01F017-22; B01F017-34; B01F017-52; C09D017-00; G02B005-00; G02B005-20; G02B005-22; G03F007-004; G03G009-08; C09D007-12

74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other CC Reprographic Processes)

Section cross-reference(s): 38, 42

FAN.CNT 1

APPLICATION NO. DATE KIND DATE PATENT NO. -----\_\_\_\_

JP 1998-267603 19980922 JP 2000095827 A2 20000404 PΙ

The agent comprises a polymer contg. a repeating unit having an NH2- and polycaprolactone backbone-contg. monomer. The compn. contains

SHOSHO

an alkali-sol. binder, a photopolymerizable monomer, a photopolymn. catalysts, the agent, a pigment, and a solvent. The agent shows high soly. in resins, good dispersing characteristics, and excellent development characteristics.

pigment dispersing agent polycaprolactone isocyanate adduct; photosensitive coloring compn caprolactone methacryloylalkyl ST isocyanate

Dispersing agents IT

(pigment dispersing agent contg. caprolactone-based polymer for photosensitive coloring compn.)

24980-41-4DP, Poly(.epsilon.-caprolactone), reaction products with 2-methacryloyloxyethylisocyanate 25248-42-4DP, Poly[oxy(1-oxo-1,6-IT hexanediyl)], 2-methacryloyloxyethylisocyanate-adduct 37164-33-3DP , .epsilon.-Caprolactone-2-hydroxyethyl methacrylate-methyl methacrylate copolymer, 2-methacryloylethylisocyanate-adduct RL: DEV (Device component use); IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES

(polycaprolactone-based pigment dispersing agent for (Uses) photosensitive coloring compn.)

37164-33-3DP, .epsilon.-Caprolactone-2-hydroxyethyl methacrylate-methyl methacrylate copolymer, 2-methacryloylethylisocyanate-IT

RL: DEV (Device component use); IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES

(polycaprolactone-based pigment dispersing agent for photosensitive coloring compn.)

RN

2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate and 2-oxepanone (9CI) (CA INDEX NAME) CN

1 CM

CRN 868-77-9 CMF C6 H10 O3

2 CM

CRN 502-44-3 CMF C6 H10 O2



3 CM

CRN 80-62-6 CMF C5 H8 O2

```
H<sub>2</sub>C O
|| ||
<sub>Me</sub>-- C-- C-- OMe
```

```
L23 ANSWER 26 OF 55 HCAPLUS COPYRIGHT 2002 ACS
     2000:179855 HCAPLUS
ΑN
     Colored and matte electrodeposition coatings for aluminum substrates and
DN
ΤI
     coating process therewith
     Saito, Yasuhisa; Okado, Yasuomi; Sanyama, Hideyoshi; Sugawara, Susumu
IN
     Shinto Paint Co., Ltd., Japan
PA
     Jpn. Kokai Tokkyo Koho, 8 pp.
     CODEN: JKXXAF
DT
     Patent
     Japanese
LA.
     ICM C09D005-44
     ICS B05D003-10; B05D007-14; C09D005-00; C09D007-12; C09D133-06;
          C09D143-04; C09D161-20
     42-7 (Coatings, Inks, and Related Products)
CC
     Section cross-reference(s): 56
 FAN.CNT 1
                                           APPLICATION NO. DATE
                  KIND DATE
     PATENT NO.
                                                            _____
                                            _____
                                                           19980907
                                           JP 1998-270543
      JP 2000080313 A2 20000321
      Title coatings, having a total pigment content of 0.5-10% (based on total
 PI
      resins), are mixts. of pigmented electrodeposition compns. and
 AΒ
      pigment-free matte electrodeposition compns. contg.
      alkoxysilyl-contg. acrylic resins and aminoplasts. A dispersion contg. Bu
      acrylate (I)-2-hydroxyethyl acrylate (II)-Me methacrylate (III)-maleic
      anhydride-styrene (IV) copolymer, Et3N, TiO2, carbon black, LLXLO, and R
      516L was mixed with a dispersion contg. acrylic acid-2-ethylhexyl
      methacrylate-3-methacryloxypropyltrimethoxysilane-I-II-III-IV copolymer,
      Et3N, and Cymel 236, dild. with water, and electrodeposited on an Al plate
      to form a 14-.mu.m film with gloss 19-21% and color deviation 0.3-0.8.
      matte colored electrodeposition coating aluminum; alkoxysilyl acrylic
 ST
      polymer aminoplast matte electrodeposition coating
      RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
      Polysiloxanes, uses
 IT
      (Technical or engineered material use); PREP (Preparation); USES (Uses)
          (acrylic; alkoxysilyl acrylic polymer- and aminoplast-contg. matte
         compn. and pigmented compn. mixts. as electrodeposits
          on Al for color uniformity)
      Electrodeposits
  ΙT
       Pigments, nonbiological
          (alkoxysilyl acrylic polymer- and aminoplast-contg. matte compn
          . and pigmented compn. mixts. as electrodeposits on Al for
          color uniformity)
       RL: POF (Polymer in formulation); TEM (Technical or engineered material
  IT
       use); USES (Uses)
          (alkoxysilyl acrylic polymer- and aminoplast-contg. matte compn
          . and pigmented compn. mixts. as electrodeposits on Al for
          color uniformity)
       Carbon black, uses
  IT
```

```
RL: TEM (Technical or engineered material use); USES (Uses)
        (alkoxysilyl acrylic polymer- and aminoplast-contg. matte compn
        . and pigmented compn. mixts. as electrodeposits on Al for
        color uniformity)
    260366-67-4P, Acrylic acid-butyl acrylate-2-ethylhexyl
IT
    methacrylate-2-hydroxyethyl acrylate-methyl methacrylate-3-
    methacryloxypropyltrimethoxysilane-maleic anhydride-styrene copolymer
     triethylamine salt
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     TEM (Technical or engineered material use); PREP (Preparation);
     USES (Uses)
        (alkoxysilyl acrylic polymer- and aminoplast-contg. matte compn
        . and pigmented compn. mixts. as electrodeposits on
        Al for color uniformity)
     7429-90-5, Aluminum, miscellaneous
ΙT
     RL: MSC (Miscellaneous)
        (alkoxysilyl acrylic polymer- and aminoplast-contg. matte compn
        . and pigmented compn. mixts. as electrodeposits on Al for
        color uniformity)
     9003-08-1, Cymel 236
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
IT
     use); USES (Uses)
         (alkoxysilyl acrylic polymer- and aminoplast-contg. matte compn
         . and pigmented compn. mixts. as electrodeposits on Al for
        color uniformity)
                                      13463-67-7, Titania, uses
                                                                    51274-00-1,
     1309-37-1, Tarox R 516L, uses
ΙT
     RL: TEM (Technical or engineered material use); USES (Uses)
         (alkoxysilyl acrylic polymer- and aminoplast-contg. matte compn. and pigmented compn. mixts. as electrodeposits on Al for
         color uniformity)
      260366-67-4P, Acrylic acid-butyl acrylate-2-ethylhexyl
ΙT
      methacrylate-2-hydroxyethyl acrylate-methyl methacrylate-3-
      methacryloxypropyltrimethoxysilane-maleic anhydride-styrene copolymer
      triethylamine salt
      RL: IMF (Industrial manufacture); POF (Polymer in formulation);
      TEM (Technical or engineered material use); PREP (Preparation);
      USES (Uses)
         (alkoxysilyl acrylic polymer- and aminoplast-contg. matte compn
         . and pigmented compn. mixts. as electrodeposits on
         Al for color uniformity)
      260366-67-4 HCAPLUS
 RN
      2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with butyl
      2-propenoate, ethenylbenzene, 2,5-furandione, 2-hydroxyethyl 2-propenoate,
 CN
      methyl 2-methyl-2-propenoate, 2-propenoic acid and 3-
      (trimethoxysilyl)propyl 2-methyl-2-propenoate, compd. with
      N, N-diethylethanamine (9CI) (CA INDEX NAME)
      CM
            1
           121-44-8
      CRN
      CMF C6 H15 N
    Et
```

Et-N-Et

CRN 260366-66-3

(C12 H22 O2 . C10 H20 O5 Si . C8 H8 . C7 H12 O2 . C5 H8 O3 . C5 H8 O2 . C4 H2 O3 . C3 H4 O2)x

CCI PMS

3 CM

CRN 2530-85-0

CMF C10 H20 O5 Si

$$\begin{array}{c|ccccc} \text{H2C} & \text{O} & \text{OMe} \\ \parallel & \parallel & \parallel & \parallel \\ \text{Me-C-C-O-(CH2)} & 3-\text{Si-OMe} \\ \parallel & \parallel & \parallel & \parallel \\ & \text{OMe} \end{array}$$

CM 4

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array} \text{CH}_2$$

CM 5

CRN 688-84-6 CMF C12 H22 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ & \text{CH}_2-\text{O-C-C-Me} \\ & | \\ & \text{Et-CH-Bu-n} \end{array}$$

CM 6

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} = \text{CH}_2 \end{array}$$

CM 7

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

9 CM

80-62-6 CRN CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-} \text{C-} \text{C-} \text{OMe} \end{array}$$

10 CM

79-10-7 CRN CMF C3 H4 O2

L23 ANSWER 27 OF 55 HCAPLUS COPYRIGHT 2002 ACS

2000:179853 HCAPLUS

132:209227 DN

Colored and matte electrodeposition coatings for aluminum substrates and ΤI coating process therewith

Saito, Yasuhisa; Okado, Yasuomi; Sanyama, Hideyoshi; Sugawara, Susumu Shinto Paint Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 7 pp. IN

PΑ

SO

CODEN: JKXXAF

Patent DΤ

Japanese LA

ICM C09D005-44 IC ICS B05D003-10; B05D007-14; C09D005-00; C09D007-12; C09D133-14; C09D161-20

42-7 (Coatings, Inks, and Related Products) CC

```
Section cross-reference(s): 56
FAN.CNT 1
                                          APPLICATION NO. DATE
                    KIND DATE
     PATENT NO.
    JP 2000080312 A2 20000321 JP 1998-270542
                                                            19980907
PΙ
    Title coatings, having a total pigment content of 0.5-10% (based on total
AΒ
    resins), are mixts. of pigmented electrodeposition compns. and
     pigment-free matte electrodeposition compns. contg.
     beta.-methylglycidyl methacrylate (I)-based acrylic resins and
     aminoplasts. A dispersion contg. Bu acrylate (II)-2-hydroxyethyl acrylate
     (III) -Me methacrylate (IV) -maleic anhydride-styrene (V) copolymer, Et3N,
     TiO2, carbon black, LLXLO, and R 516L was mixed with a dispersion contg.
     acrylic acid-2-ethylhexyl methacrylate-I-II-III-IV-V copolymer, Et3N, and
     Cymel 236, dild. with water, and electrodeposited on an Al plate to form a
     14-.mu.m film with gloss 19-21% and color deviation 0.3-0.8.
     matte colored electrodeposition coating aluminum; methylglycidyl
ST
     methacrylate acrylic polymer aminoplast matte electrodeposition coating
     Electrodeposits
ΙT
     Pigments, nonbiological
        (methylglycidyl acrylic polymer- and aminoplast-contg. matte
        compn. and pigmented compn. mixts. as electrodeposits
        on Al for color uniformity)
     Acrylic polymers, uses
IT
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
     (Technical or engineered material use); PREP (Preparation); USES (Uses)
         (methylglycidyl acrylic polymer- and aminoplast-contg. matte
        compn. and pigmented compn. mixts. as electrodeposits
        on Al for color uniformity)
ΙT
     Aminoplasts
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
         (methylglycidyl acrylic polymer- and aminoplast-contg. matte
        compn. and pigmented compn. mixts. as electrodeposits
        on Al for color uniformity)
      Carbon black, uses
IT
     RL: TEM (Technical or engineered material use); USES (Uses)
         (methylglycidyl acrylic polymer- and aminoplast-contg. matte
         compn. and pigmented compn. mixts. as electrodeposits
         on Al for color uniformity)
      260366-44-7P, Acrylic acid-butyl acrylate-2-ethylhexyl
 IT
      methacrylate-2-hydroxyethyl acrylate-methyl methacrylate-.beta.-
      methylglycidyl methacrylate-maleic anhydride-styrene copolymer
      triethylamine salt
      RL: IMF (Industrial manufacture); POF (Polymer in formulation);
      TEM (Technical or engineered material use); PREP (Preparation);
      USES (Uses)
         (methylglycidyl acrylic polymer- and aminoplast-contg. matte
         compn. and pigmented compn. mixts. as
         electrodeposits on Al for color uniformity)
      7429-90-5, Aluminum, miscellaneous
 IT
      RL: MSC (Miscellaneous)
         (methylglycidyl acrylic polymer- and aminoplast-contg. matte
         compn. and pigmented compn. mixts. as electrodeposits
         on Al for color uniformity)
      9003-08-1, Cymel 236
 ΙT
      RL: POF (Polymer in formulation); TEM (Technical or engineered material
      use); USES (Uses)
         (methylglycidyl acrylic polymer- and aminoplast-contg. matte
         compn. and pigmented compn. mixts. as electrodeposits
         on Al for color uniformity)
```

```
13463-67-7, Titania, uses
                                                                  51274-00-1,
     1309-37-1, Tarox R 516L, uses
IT
     LL-XLO
     RL: TEM (Technical or engineered material use); USES (Uses)
        (methylglycidyl acrylic polymer- and aminoplast-contg. matte
        compn. and pigmented compn. mixts. as electrodeposits
        on Al for color uniformity)
     260366-44-7P, Acrylic acid-butyl acrylate-2-ethylhexyl
IT
     methacrylate-2-hydroxyethyl acrylate-methyl methacrylate-.beta.-
     methylglycidyl methacrylate-maleic anhydride-styrene copolymer
     triethylamine salt
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     TEM (Technical or engineered material use); PREP (Preparation);
     USES (Uses)
        (methylglycidyl acrylic polymer- and aminoplast-contg. matte
        compn. and pigmented compn. mixts. as
        electrodeposits on Al for color uniformity)
     260366-44-7 HCAPLUS
RN
     2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with butyl
CN
     2-propenoate, ethenylbenzene, 2,5-furandione, 2-hydroxyethyl 2-propenoate,
     methyl 2-methyl-2-propenoate, (2-methyloxiranyl)methyl
     2-methyl-2-propenoate and 2-propenoic acid, compd. with
     N, N-diethylethanamine (9CI) (CA INDEX NAME)
     CM
          1
     CRN 121-44-8
     CMF C6 H15 N
   Et
Et-N-Et
     CM
          2
          260366-43-6
     CRN
           (C12 H22 O2 . C8 H12 O3 . C8 H8 . C7 H12 O2 . C5 H8 O3 . C5 H8 O2 .
          C4 H2 O3 . C3 H4 O2)x
          PMS
     CCI
          CM
                3
          CRN 41768-20-1.
          CMF C8 H12 O3
```

CRN 818-61-1 CMF C5 H8 O3

CRN 688-84-6 CMF C12 H22 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \\ & | \\ \text{Et} - \text{CH} - \text{Bu-n} \end{array}$$

CM 6

CRN 141-32-2 CMF C7 H12 O2

CM 7

CRN 108-31-6 CMF C4 H2 O3

CM

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 9

CRN 80-62-6 CMF C5 H8 O2

H<sub>2</sub>C O -11 Me-C-C-OMe

> 10 CM

CRN 79-10-7 CMF C3 H4 O2

0 HO- C- CH == CH2

L23 ANSWER 28 OF 55 HCAPLUS COPYRIGHT 2002 ACS

2000:179852 HCAPLUS AN

132:209226 DИ

Colored and matte electrodeposition coatings for aluminum substrates and ΤI coating process therewith

Saito, Yasuhisa; Okado, Yasuomi; Sanyama, Hideyoshi; Sugawara, Susumu IN

Shinto Paint Co., Ltd., Japan PA

Jpn. Kokai Tokkyo Koho, 8 pp. SO

CODEN: JKXXAF

DT Patent

LA Japanese

ICM C09D005-44 IC

ICS B05D003-10; B05D007-14; C09D005-00; C09D007-12; C09D133-06

42-7 (Coatings, Inks, and Related Products)

Section cross-reference(s): 56

FAN.CNT 1

APPLICATION NO. DATE KIND DATE PATENT NO. JP 1998-270541 19980907

20000321 A2 JP 2000080311 Title coatings, having a total pigment content of 0.5-10% (based on total PIAB resins), are mixts. of pigmented electrodeposition compns. and pigment-free matte electrodeposition compns. contg. acetoacetyl side group-contg. acrylic resins and aldehydes. A dispersion contg. Bu acrylate (I)-2-hydroxyethyl acrylate (II)-Me methacrylate (III)-maleic anhydride-styrene (IV) copolymer, Et3N, TiO2, carbon black, LLXLO, and R 516L was mixed with a dispersion contg. acrylic acid-acetoacetoxyethyl methacrylate-I-II-IV copolymer, Et3N, Cymel 236, and HCHO, dild. with water, and electrodeposited on an Al plate to form a 14-.mu.m film with

gloss 19-21% and color deviation 0.3-0.8. matte colored electrodeposition coating aluminum; acetoacteyl acrylic ST

polymer aldehyde matte electrodeposition coating

Electrodeposits ΙT

Pigments, nonbiological

(acetoacetyl acrylic polymer- and aldehyde-contg. matte compn . and pigmented compn. mixts. for electrodeposits on Al for color uniformity)

Acrylic polymers, uses IT RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acetoacetyl acrylic polymer- and aldehyde-contg. matte compn . and pigmented compn. mixts. for electrodeposits on Al for

CN

```
color uniformity)
    Aldehydes, uses
IT
     RL: MOA (Modifier or additive use); USES (Uses)
        (acetoacetyl acrylic polymer- and aldehyde-contg. matte compn
        . and pigmented compn. mixts. for electrodeposits on Al for
        color uniformity)
     Aminoplasts
ΙT
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (acetoacetyl acrylic polymer- and aldehyde-contg. matte compn
        . and pigmented compn. mixts. for electrodeposits on Al for
        color uniformity)
     Carbon black, uses
ΙT
     RL: TEM (Technical or engineered material use); USES (Uses)
        (acetoacetyl acrylic polymer- and aldehyde-contg. matte compn
        . and pigmented compn. mixts. for electrodeposits on Al for
        color uniformity)
     260366-11-8P, Acrylic acid-acetoacetoxyethyl methacrylate-butyl
IT
     acrylate-2-hydroxyethyl acrylate-methyl methacrylate-maleic
     anhydride-styrene copolymer triethylamine salt
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     TEM (Technical or engineered material use); PREP (Preparation);
     USES (Uses)
        (acetoacetyl acrylic polymer- and aldehyde-contg. matte compn
         . and pigmented compn. mixts. for electrodeposits
        on Al for color uniformity)
     50-00-0, Formaldehyde, uses
IT
     RL: MOA (Modifier or additive use); USES (Uses)
         (acetoacetyl acrylic polymer- and aldehyde-contg. matte compn
         . and pigmented compn. mixts. for electrodeposits on Al for
        color uniformity)
     7429-90-5, Aluminum, miscellaneous
IT
     RL: MSC (Miscellaneous)
         (acetoacetyl acrylic polymer- and aldehyde-contg. matte compn
         . and pigmented compn. mixts. for electrodeposits on Al for
         color uniformity)
      9003-08-1, Cymel 236
IT
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
      use); USES (Uses)
         (acetoacetyl acrylic polymer- and aldehyde-contg. matte compn
         . and pigmented compn. mixts. for electrodeposits on Al for
         color uniformity)
                                                                  51274-00-1,
                                     13463-67-7, Titania, uses
      1309-37-1, Tarox R 516L, uses
 IT
      LL-XLO
      RL: TEM (Technical or engineered material use); USES (Uses)
         (acetoacetyl acrylic polymer- and aldehyde-contg. matte compn
         . and pigmented compn. mixts. for electrodeposits on Al for
         color uniformity)
      260366-11-8P, Acrylic acid-acetoacetoxyethyl methacrylate-butyl
 IT
      acrylate-2-hydroxyethyl acrylate-methyl methacrylate-maleic
      anhydride-styrene copolymer triethylamine salt
      RL: IMF (Industrial manufacture); POF (Polymer in formulation);
      TEM (Technical or engineered material use); PREP (Preparation);
      USES (Uses)
         (acetoacetyl acrylic polymer- and aldehyde-contg. matte compn
         . and pigmented compn. mixts. for electrodeposits
         on Al for color uniformity)
      260366-11-8 HCAPLUS
 RN
      Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester,
```

polymer with butyl 2-propenoate, ethenylbenzene, 2,5-furandione,

2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid, compd. with N, N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8 CMF C6 H15 N

Εt Et-N-Et

> 2 CM

CRN 260366-10-7

(C10 H14 O5 . C8 H8 . C7 H12 O2 . C5 H8 O3 . C5 H8 O2 . C4 H2 O3 . C3 H4 O2)x

CCI PMS

> CM3

CRN 21282-97-3 CMF C10 H14 O5

CM4

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{--CH}_2\text{--O-C-CH} \end{array} \text{CH}_2$$

CM 5

CRN 141-32-2 CMF C7 H12 O2

$$\overset{\text{O}}{\underset{\text{n-BuO-C-CH}}{\parallel}}\text{ch}_2$$

CM 6 CRN 108-31-6 CMF C4 H2 O3

7 CM

100-42-5 CRN CMF C8 H8

 $H_2C = CH - Ph$ 

8 CM

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{\text{H}_2\text{C}} & \text{O} \\ \parallel & \parallel \\ \text{Me-C-C-OMe} \end{array}$$

9 CM

CRN 79-10-7 CMF C3 H4 O2

L23 ANSWER 29 OF 55 HCAPLUS COPYRIGHT 2002 ACS

1999:658542 HCAPLUS ΑN

DN 131:293304

Photosensitive color composition and color filter using it ΤI

Nagata, Eriko; Tamura, Akira IN

Toppan Printing Co., Ltd., Japan

PA Jpn. Kokai Tokkyo Koho, 8 pp. SO

CODEN: JKXXAF

DT**Patent** 

LA Japanese

ICM G03F007-038 IC G02B005-20; G03F007-004; C08L033-00; C08L101-00; C09D133-00; C09D201-00

74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other CC Reprographic Processes) Section cross-reference(s): 38

```
FAN.CNT 1
                                          APPLICATION NO. DATE
                   KIND DATE
    PATENT NO.
                     ____
     _____
                                          JP 1998-81880
                                                           19980327
     JP 11282158
                            19991015
                      A2
PΙ
    The compn. contains an acid-curable resin, a crosslinking agent,
AB
     a photoacid generator, and a coloring material comprising a dye and a
     pigment. The compn. is useful for manufg. the filter. The
     compn. shows excellent storage stability and sensitivity, so that
     the filter with excellent heat and weather resistance, resoln.,
     spectroscopic permeability, and contrast can be manufd.
     photosensitive resin compn color filter; pigment dye
ST
     photosensitive resin compn
     Aminoplasts
     RL: DEV (Device component use); TEM (Technical or engineered material
IT
     use); USES (Uses)
        (MW 30M, crosslinking agent; dye- and pigment-contg. photosensitive
        resin compn. for color filter)
     Optical filters
IT
     Photoresists
        (dye- and pigment-contg. photosensitive resin compn. for
        color filter)
     9003-08-1, MW 30M
IT
     RL: DEV (Device component use); TEM (Technical or engineered material
     use); USES (Uses)
         (MW 30M, crosslinking agent; dye- and pigment-contg. photosensitive
        resin compn. for color filter)
     31942-54-8P, Butyl methacrylate-hydroxyethyl methacrylate-methyl
 IT
     methacrylate copolymer
     RL: DEV (Device component use); IMF (Industrial manufacture);
     TEM (Technical or engineered material use); PREP (Preparation);
      USES (Uses)
         (dye- and pigment-contg. photosensitive resin compn
         . for color filter)
      1328-53-6, C.I. Pigment green 7 104244-10-2, C.I. Solvent Yellow 162
 IT
      RL: DEV (Device component use); TEM (Technical or engineered material
      use); USES (Uses)
         (dye- and pigment-contg. photosensitive resin compn. for
         color filter)
      69432-40-2, 2-(4'-Methoxy-1'-naphthyl)-4,6-bis(trichloromethyl)-s-triazine
 IT
      RL: DEV (Device component use); TEM (Technical or engineered material
      use); USES (Uses)
         (photoacid generator; dye- and pigment-contg. photosensitive resin
         compn. for color filter)
      31942-54-8P, Butyl methacrylate-hydroxyethyl methacrylate-methyl
 IT
      methacrylate copolymer
      RL: DEV (Device component use); IMF (Industrial manufacture);
      TEM (Technical or engineered material use); PREP (Preparation);
      USES (Uses)
          (dye- and pigment-contg. photosensitive resin compn
          . for color filter)
      31942-54-8 HCAPLUS
 RN
      2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-hydroxyethyl
      2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX
 CN
       NAME)
       CM
            1
           868-77-9
       CRN
```

C6 H10 O3

CMF

```
H<sub>2</sub>C O
    || ||
Me-C-C-O-CH2-CH2-OH
```

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

3 CM

CRN 80-62-6 CMF C5 H8 O2

```
L23 ANSWER 30 OF 55 HCAPLUS COPYRIGHT 2002 ACS
     1999:597457 HCAPLUS
AN
    Method for coating mineral products, the coated mineral products obtained,
     131:218276
DN
ΤI
     and the aqueous film-forming coating materials and their use
     Schwartz, Manfred; Bechert, Berthold
IN
     BASF Aktiengesellschaft, Germany
PA
     Eur. Pat. Appl., 14 pp.
SO
     CODEN: EPXXDW
     Patent
DT
     German
LA
     ICM C04B041-63
IC
     ICS C08F020-12; C09D133-06
     58-2 (Cement, Concrete, and Related Building Materials)
CC
FAN.CNT 1
                                          APPLICATION NO. DATE
                     KIND DATE
     PATENT NO.
                                          -----
                     ____
                                         EP 1999-104590 19990308
                           19990915
                     A1
     EP 941977
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
PΙ
             IE, SI, LT, LV, FI, RO
                                          DE 1998-19810052 19980309
                           19990916
                      A1
     DE 19810052
                                                           19990308
                                          NO 1999-1115
                            19990910
                       Α
     NO 9901115
                                                           19990308
                                          US 1999-263822
                            20001219
                       Α
     US 6162505
                                                           19990309
                                          JP 1999-62157
                            19991124
     JP 11322471
                       A2
 PRAI DE 1998-19810052 A
                           19980309
     In this method, comprising coating the mineral products with an aq.
```

compn. contg. .gtoreq.1 binder copolymers (P1) and .gtoreq.1

products with an aq. compn. contg. .gtoreq.1 binder copolymers

inorg. pigments, optionally drying the coating, and coating the mineral

IT

ΙT

IT

IT

```
(P2) and .gtoreq.1 inorg. pigments (P1, P2 consisting of monomer A, B,
    and, optionally, C), and in which monomer A consists of vinyl arenes (A1)
    and/or methacrylic acid esters of C1-4-aliph. alcs. (A2), monomer B
    consists of esters (different from A2) of .alpha.,.beta.-ethylenically
    unsatd. carboxylic acids and C1-12-aliph. alcs. (B1) and/or vinyl esters
    of aliph. carboxylic acids (B2), and monomer C of (different)
    .alpha.,.beta.-ethylenically monomers, the monomers for P1 and P2 are the
    same A and B, and the pigment vol. concn. of the 1st compn. is
    .gtoreq.10 times that of the 2nd compn. The coatings are
    weather-resistant and prevent efflorescence. A dispersion was prepd.
    using deionized water 400, itaconic acid 1.4, 1st emulsifier soln. 6.22, and deionized water 200.0, 1st emulsifier soln. 9.3, 2nd emulsifier soln.
    37.3, Me methacrylate 413.0, n-Bu acrylate 287, 50-wt.% aq. soln. of
    2-acrylamido-2-methylpropanesulfonic acid Na salt 28.0, and 50-wt.% aq.
    soln. of acrylamide 7.0 g, and Na persulfate 1.4 in water 75 g.
    mineral weather resistant coating pigment; vinyl arene copolymer coating
    pigment; methacrylic acid ester copolymer coating; unsatd carboxylic acid
    ester copolymer; ester vinyl copolymer
        (coating of; pigment-contg. aq. weather-resistant film-forming coating
        materials for)
     Pigments, nonbiological
        (mineral product coating with aq. compn. contg.
        weather-resistant film-forming coating materials and)
     112409-96-8P 242464-01-3P
     RL: SPN (Synthetic preparation); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (mineral product coating with aq. compn. contg.
        pigment and)
              THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
(1) Anon; 1982, 18, HCAPLUS
(2) Basf Ag; EP 0469295 A 1992 HCAPLUS
(3) Dainippon Toryo Co Ltd; JP 57071884 A 1982 HCAPLUS
(4) Kubota Corp; JP 03208874 A 1991 HCAPLUS
     242464-01-3P
     RL: SPN (Synthetic preparation); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (mineral product coating with aq. compn. contg.
        pigment and)
     242464-01-3 HCAPLUS
     2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
```

RN CN 2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9 CMF C7 H13 N O4 S . Na

## Na

$$\overset{\text{O}}{\underset{n-\text{BuO}-\text{C-CH}}{\parallel}}\text{CH}_2$$

$$\begin{array}{ccc} ^{\text{H}_2\text{C}} & \text{O} \\ \parallel & \parallel \\ ^{\text{Me}-\text{C}-\text{C}-\text{OMe}} \end{array}$$

$$\begin{matrix} \text{O} \\ || \\ \text{H}_2\text{N}-\text{C}-\text{CH} == \text{CH}_2 \end{matrix}$$

L23 ANSWER 31 OF 55 HCAPLUS COPYRIGHT 2002 ACS

1999:463426 HCAPLUS AN

131:103579 DN

Production method of aqueous pigment dispersion and aqueous coloring ΤI composition made from the same

Ishimori, Motokazu; Hashizume, Toyomi; Takao, Nagayuki IN

Dainippon Ink and Chemicals, Inc., Japan PΑ

Jpn. Kokai Tokkyo Koho, 12 pp. SO

CODEN: JKXXAF

```
DT
    Patent
    Japanese
LA
    ICM C08L101-00
IC
     ICS C09C003-10; C09D011-00; C09D017-00
     42-10 (Coatings, Inks, and Related Products)
CC
     Section cross-reference(s): 37
FAN.CNT 1
                                         APPLICATION NO. DATE
                  KIND DATE
     PATENT NO.
      _____
                     ____
                                           JP 1998-3183 19980109
     JP 11199783 A2 19990727
PΙ
     The dispersion, having vol. av. particle diam. 10-500 nm and for formation
AB
     of membranes and inks with good water resistance and good durability, is
     prepd. by neutralization of a carboxyl-contg. polymer having acid value
     30-120 and a hydrous cake of a pigment and a dispersing agent with a basic
     compd. Thus, a dispersion is prepd. by neutralization of a copolymer
     (acid value 70; no.-av. mol.-wt. 6000) of Bu methacrylate, Bu acrylate,
     2-hydroxyethyl methacrylate and methacrylic acid with
     dimethylethanolamine, adding Fastogen Super Magenta RTS, a dispersing
     agent of dimethylaminomethyl-substituted 3,10-dichloroquinacritone and an
     ion exchange water and neutralization with a basic compd.
     aq coloring compn acrylic polymer amine salt; coating material
ST
     ink coloring dispersion
     Water-resistant materials
IT
     Water-resistant materials
        (inks; prodn. method of aq. pigment dispersion and aq. coloring
        compn. made from the same)
     Coloring materials
IT
     Dispersing agents
        (prodn. method of aq. pigment dispersion and aq. coloring compn
         . made from the same)
     Acrylic polymers, uses
ΙT
     Polyesters, uses
     Polyurethanes, uses
     RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
      engineered material use); PREP (Preparation); USES (Uses)
         (prodn. method of aq. pigment dispersion and aq. coloring compn
         . made from the same)
     Diazo compounds
ΙT
      RL: TEM (Technical or engineered material use); USES (Uses)
         (prodn. method of aq. pigment dispersion and aq. coloring compn
         . made from the same)
      Coating materials
IT
      Inks
      Inks
         (water-resistant; prodn. method of aq. pigment dispersion and aq.
         coloring compn. made from the same)
      Coating materials
 ΙT
      Inks
         (water-thinned; prodn. method of aq. pigment dispersion and aq.
         coloring compn. made from the same)
      3573-01-1, 3,10-Dichloroquinacridone
 IT
      RL: MOA (Modifier or additive use); USES (Uses)
         (dimethylaminomethyl-substituted; prodn. method of aq. pigment
         dispersion and aq. coloring compn. made from the same)
                                       34376-24-4
      91-94-1, 3,3'-Dichlorobenzidine
 IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (dispersing agents; prodn. method of aq. pigment dispersion and aq.
         coloring compn. made from the same)
      55854-33-6P, Butyl methylacrylate-2-hydroxyethyl
 ΙT
      methacrylate-methacrylic acid-styrene copolymer 188019-55-8P,
```

03,003313

Butyl acrylate-butyl methylacrylate-2-hydroxyethyl methacrylate-methacrylic acid copolymer dimethylethanolamine salt 227605-21-2P 231951-73-8P

RL: IMF (Industrial manufacture); PRP (Properties); TEM
(Technical or engineered material use); PREP (Preparation); USES
(Uses)

(prodn. method of aq. pigment dispersion and aq. coloring compn. made from the same)

IT 111214-34-7, Hydran AP 40 150275-15-3 188019-63-8
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(prodn. method of aq. pigment dispersion and aq. coloring compn. made from the same)

IT 92-15-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(prodn. method of aq. pigment dispersion and aq. coloring compn. made from the same)

147-14-8, Fastogen Blue TGR 147-14-8D, Copper phthalocyanine, N,N-dimethylaminopropylsulfone amide-substituted 980-26-7, Fastogen Super Magenta RTS 4531-49-1, SymulerFast Yellow 8GTF RL: TEM (Technical or engineered material use); USES (Uses)

(prodn. method of aq. pigment dispersion and aq. coloring compn. made from the same)

55854-33-6P, Butyl methylacrylate-2-hydroxyethyl
methacrylate-methacrylic acid-styrene copolymer 188019-55-8P,
Butyl acrylate-butyl methylacrylate-2-hydroxyethyl methacrylatemethacrylic acid copolymer dimethylethanolamine salt
RL: IMF (Industrial manufacture); PRP (Properties); TEM
 (Technical or engineered material use); PREP (Preparation); USES
 (Uses)

(prodn. method of aq. pigment dispersion and aq. coloring compn. made from the same)

RN 55854-33-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9 CMF C6 H10 O3

CM 2

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 3

CRN 97-88-1 C8 H14 O2 CMF

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM

CRN 79-41-4 CMF C4 H6 O2

188019-55-8 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, CN butyl 2-propenoate and 2-hydroxyethyl 2-methyl-2-propenoate, compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0 CMF C4 H11 N O

 $Me_2N-CH_2-CH_2-OH$ 

2 CM

CRN 70977-05-8 (C8 H14 O2 . C7 H12 O2 . C6 H10 O3 . C4 H6 O2)  $\times$ CMF CCI PMS

CM3

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 141-32-2 CMF C7 H12 O2 O || n-BuO-C-CH==CH2

CM 5

CRN 97-88-1 CMF C8 H14 O2

 $\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$ 

CM 6

CRN 79-41-4 CMF C4 H6 O2

CH<sub>2</sub> || Me-C-CO<sub>2</sub>H

L23 ANSWER 32 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 1999:48441 HCAPLUS

DN 130:155115

TI Pigment dispersion and ink composition for offset printing made from the same

IN Kinoshita, Hidenoro; Iwase, Takashi; Sato, Akihisa

PA Sakata Inx Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D017-00

ICS C09D011-10; C08F212-08; C08F220-10; C08G059-14

CC 42-12 (Coatings, Inks, and Related Products)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 11012528 A2 19990119 JP 1997-166365 19970623

PI JP 11012528 A2 19990119 JP 1997-166363 19976023

The compn. comprises a pigment, an arom. and a basic and/or an acid group-contg. auxiliary dispersing agent, a polymer for dispersion the auxiliary dispersing agent, a solvent and a binder, wherein the auxiliary dispersing agent is made from mainly a monomer having arom. ring, a monomer having acid group and other monomers. Thus, an auxiliary was prepd. by the polymn. of 166.6 parts styrene and 34.4 parts methacrylic acid in the presence of AIBN and condensation reaction in stearyl alc. and xylene mixt. in the presence of tetra-Bu titanate at 150-160.degree. to gave an agent having wt. av. mol. wt. 4400 and acid value 32.

ink pigment auxiliary dispersant styrene copolymer; methacrylic acid copolymer pigment dispersant; offset printing ink dispersion aid

```
IT
        (lithog.; pigment dispersion and ink compn. for offset
        printing made from the same)
     Dispersing agents
IT
     Polymerization
        (pigment dispersion and ink compn. for offset printing made
        from the same)
     Acrylic polymers, uses
IT
     RL: MOA (Modifier or additive use); SPN (Synthetic preparation); TEM
     (Technical or engineered material use); PREP (Preparation); USES (Uses)
         (pigment dispersion and ink compn. for offset printing made
        from the same)
     9010-92-8DP, Methacrylic acid-styrene copolymer, reaction product with
IT
                     9011-13-6DP, Maleic anhydride-styrene copolymer, reaction
     stearvl alc.
                                  25167-42-4DP, Glycidyl methacrylate-styrene
     product with stearyl alc.
                                                      25167-42-4DP, Glycidyl
     copolymer, reaction product with stearic acid
     methacrylate-styrene copolymer, reaction product with stearylamine
     25167-42-4P, Glycidyl methacrylate-styrene copolymer 26010-51-5DP
     , Hydroxyethyl methacrylate-styrene copolymer, reaction product with
                           27924-99-8DP, 12-Hydroxystearic acid homopolymer,
     succinic anhydride
     reaction product with succinic anhydride 27941-02-2DP, 12-Hydroxystearic
                                        27941-02-2DP, 12-Hydroxystearic acid
     acid homopolymer, sru, aminated
     homopolymer, sru, reaction product with succinic anhydride 29564-58-Glycidyl methacrylate-methyl methacrylate-styrene copolymer, reaction
                                                                     29564-58-7DP,
                                 66251-30-7DP, Glycidyl methacrylate-vinyl
     product with stearyl alc.
     toluene copolymer, reaction product with succinic anhydride
     137000-03-4P, 2-Dimethylaminoethyl methacrylate-hydroxyethyl
      methacrylate-styrene copolymer
      RL: MOA (Modifier or additive use); SPN (Synthetic
     preparation); TEM (Technical or engineered material use); PREP
      (Preparation); USES (Uses)
         (pigment dispersion and ink compn. for offset
         printing made from the same)
      26010-51-5DP, Hydroxyethyl methacrylate-styrene copolymer,
TT
      reaction product with succinic anhydride 137000-03-4P,
      2-Dimethylaminoethyl methacrylate-hydroxyethyl methacrylate-styrene
      copolymer
      RL: MOA (Modifier or additive use); SPN (Synthetic
      preparation); TEM (Technical or engineered material use); PREP
      (Preparation); USES (Uses)
         (pigment dispersion and ink compn. for offset
         printing made from the same)
      26010-51-5 HCAPLUS
 RN
      2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with
 CN
      ethenylbenzene (9CI) (CA INDEX NAME)
      CM
```

CRN 868-77-9 CMF C6 H10 O3

2 CM

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

137000-03-4 HCAPLUS RN

2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethenylbenzene and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX CN NAME)

1 CM

CRN 2867-47-2 CMF C8 H15 N O2

2 CM

CRN 868-77-9 CMF C6 H10 O3

3 CM

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

L23 ANSWER 33 OF 55 HCAPLUS COPYRIGHT 2002 ACS

1998:804046 HCAPLUS ΑN

130:39906 DN

Water-thinned ink-jet ink compositions

Sacripante, Guerino G.; Nichols, Garland J.; Kneisel, Elizabeth A.; Cheng, ΤI IN

Chieh-min Xerox Corp., USA PΑ

Eur. Pat. Appl., 12 pp. SO

CODEN: EPXXDW

Patent DT

English LA

ICM C09D011-00 IC

42-12 (Coatings, Inks, and Related Products) CC

FAN.CNT 1

SHOSHO

APPLICATION NO. DATE KIND DATE PATENT NO. \_\_\_\_ A2 A3 EP 1998-110076 19980603 19981209 EP 882771 19990407 EP 882771 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO 19970605 US 1997--869962 В1 20011211 19980506 JP 1998-123376 JP 10338826 . 19981222 A2 Α 19970605 PRAI US 1997-869962 The inks, showing good stability and smear resistance, comprise a vehicle, a colorant, and a resin emulsion, wherein the resin emulsion contains water, surfactant, resin particles and solubilized resin obtained by polymn. of a mixt. of olefinic monomers, and wherein .gtoreq.1 of the olefinic monomers is an acid. Thus, an ink contg. carbon black, sulfolane, polyethylene glycol, an emulsion of benzyl methacrylatemethacrylic acid-polyethylene glycol methacrylate copolymer as a smear-reducing additive, and water. wet smear resistance water thinned ink; aq jet printing ink; benzyl ST methacrylate methacrylic acid polyethylene glycol methacrylate copolymer IT Inks (jet-printing, water-thinned; water-thinned pigmented ink-jet inks with improved smear resistance) 26284-14-0P, Butyl methacrylate-methacrylic acid copolymer 30701-66-7P, IT Butyl methacrylate-glycidyl methacrylate-methacrylic acid copolymer 216978-97-1P, Benzyl methacrylate-methacrylic acid-polyethylene glycol monomethacrylate copolymer RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (smear-reducing additives; water-thinned pigmented ink-jet inks with improved smear resistance) 216978-97-1P, Benzyl methacrylate-methacrylic acid-polyethylene IT glycol monomethacrylate copolymer RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (smear-reducing additives; water-thinned pigmented ink-jet inks with improved smear resistance) 216978-97-1 HCAPLUS RN 2-Propenoic acid, 2-methyl-, polymer with .alpha.-(2-methyl-1-oxo-2-CN propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and phenylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME) CM 1 CRN 25736-86-1 (C2 H4 O)n C4 H6 O2 CMF CCI PMS

CM 2

CRN 2495-37-6 CMF C11 H12 O2

CRN 79-41-4 CMF C4 H6 O2

L23 ANSWER 34 OF 55 HCAPLUS COPYRIGHT 2002 ACS AN 1998:538513 HCAPLUS

DN 129:232013

TI Design of polymeric dispersants for waterborne coatings

AU Creutz, S.; Jerome, R.; Kaptijn, G. M. P.; Van der Werf, A. W.; Akkerman, J. M.

CS Cent. Educ. and Res. Macromolecules (CERM), Univ. Liege, Sart-Tilman, 4000, Belg.

SO Journal of Coatings Technology (1998), 70(883), 41-46 CODEN: JCTEDL; ISSN: 0361-8773

PB Federation of Societies for Coatings Technology

DT Journal

LA English

CC 42-5 (Coatings, Inks, and Related Products)

Block and random copolymers of ammonium methacrylate and dimethylaminoethyl methacrylate have been synthesized and tested as dispersants of various org. and inorg. pigments in formulations for waterborne paints. Blockiness of the co-monomer distribution is a prerequisite for good color characteristics in the final paint. A tapered diblock (one-step anionic synthesis), a diblock copolymer with a regular change in compn. from one block to the other one, has interfacial activity quite comparable to the parent "pure" diblock copolymer (two-step anionic synthesis). The most interesting observation is that the poly(dimethylaminoethyl methacrylate) anchoring block can impart stability to dispersion of pigments as different as iron oxide, a blue Cu-phthalocyanine pigment, and a red org. pigment based on pyrrole in representative aq. paint formations.

dispersant pigment waterborne paint; ammonium methacrylate copolymer dispersant waterborne paint; methylaminoethyl methacrylate copolymer dispersant waterborne paint

IT Dispersing agents

Pigments, nonbiological

(design of ammonium methacrylate-dimethylaminoethyl methacrylate copolymer dispersants for pigments in waterborne paints)

IT Paints

(water-thinned; design of ammonium methacrylate-dimethylaminoethyl methacrylate copolymer dispersants for pigments in waterborne paints)

1T 110563-56-9DP, tert-Butyl methacrylate-2-(dimethylamino)ethyl
methacrylate copolymer, hydrolyzed, ammonium salts
RL: MOA (Modifier or additive use); SPN (Synthetic
preparation); PREP (Preparation); USES (Uses)

(design of ammonium methacrylate-dimethylaminoethyl methacrylate copolymer dispersants for pigments in waterborne paints)

184827-21-2DP, tert-Butyl methacrylate-2-(dimethylamino)ethyl methacrylate block copolymer, hydrolyzed, ammonium salts RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(diblock; design of ammonium methacrylate-dimethylaminoethyl methacrylate copolymer dispersants for **pigments** in waterborne paints)

IT 110563-56-9DP, tert-Butyl methacrylate-2-(dimethylamino)ethyl
methacrylate copolymer, hydrolyzed, ammonium salts
RL: MOA (Modifier or additive use); SPN (Synthetic
preparation); PREP (Preparation); USES (Uses)

(design of ammonium methacrylate-dimethylaminoethyl methacrylate copolymer dispersants for **pigments** in waterborne paints)

RN 110563-56-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2 CMF C8 H15 N O2

CM 2

CRN 585-07-9 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{t-BuO-C-C-Me} \end{array}$$

184827-21-2DP, tert-Butyl methacrylate-2-(dimethylamino)ethyl
methacrylate block copolymer, hydrolyzed, ammonium salts
RL: MOA (Modifier or additive use); SPN (Synthetic
preparation); PREP (Preparation); USES (Uses)

(diblock; design of ammonium methacrylate-dimethylaminoethyl methacrylate copolymer dispersants for **pigments** in waterborne paints)

RN 184827-21-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2 CMF C8 H15 N O2

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{Me}_2 \text{N-CH}_2 \text{-CH}_2 \text{-O-C-C-Me} \end{array}$$

CRN 585-07-9 CMF C8 H14 O2

O CH<sub>2</sub> || || t-BuO-C-C-Me

L23 ANSWER 35 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:361028 HCAPLUS

DN 129:102037

TI Pigmented photosensitive polymer compositions and color filters using same

IN Higuchi, Yoichi; Yamagata, Hideaki; Ito, Kyoko; Mori, Hiroyuki; Kageyama,

PA Dainippon Printing Co., Ltd., Japan; Ink Tech K. K.

SO Jpn. Kokai Tokkyo Koho, 11 pp. CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F290-04 ICS G02F001-1335

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37, 38

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
PI JP 10152536 A2 19980609 JP 1996-325905 19961122

AB Title compns. comprise (A) photopolymerizable polymers which are prepd. by addn. reaction of 1-12 parts of a glycidyl (meth)acrylates to 100 parts of a copolymers comprising benzyl (meth)acrylates 1-50, styrene 15-55, and (meth)acrylic acids 5-40 parts, (B) photopolymerizable monomers, (C) photopolymn. initiators, preferably contg. .gtoreq.50% acetophenone types, (D) color pigments, and (E) solvents. The color filters, esp. black matrixes, are also claimed. The photosensitive color compn. can be uniformly developed with alk. aq. developers.

pigmented photopolymerizable polymer compn color filter; black matrix pigmented photopolymerizable polymer compn; glycidyl acrylate addn acrylic polymer photosensitive; acetophenone photopolymn initiator color filter

IT Optical filters

(contained in pigmented photosensitive polymer compn. for color filters, esp. black matrixes)

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses) (contained in pigmented photosensitive polymer compn. for color filters, esp. black matrixes)

IT 21245-01-2, Isoamyl-4-(dimethylamino)benzoate

```
RL: CAT (Catalyst use); USES (Uses)
        (DMBI; contained in pigmented photosensitive polymer compn.
        for color filters, esp. black matrixes)
     7473-98-5
IT
     RL: CAT (Catalyst use); USES (Uses)
        (Darocur 1173; contained in pigmented photosensitive polymer
        compn. for color filters, esp. black matrixes)
     38394-53-5, S 112
ΙT
     RL: CAT (Catalyst use); USES (Uses)
        (S 112; contained in pigmented photosensitive polymer compn.
        for color filters, esp. black matrixes)
     6542-67-2
ΙT
     RL: CAT (Catalyst use); USES (Uses)
        (TAZ 101; contained in pigmented photosensitive polymer compn
        . for color filters, esp. black matrixes)
     42573-57-9
IT
     RL: CAT (Catalyst use); USES (Uses)
        (TAZ 110; contained in pigmented photosensitive polymer compn
        . for color filters, esp. black matrixes)
     947-19-3, Irgacure 184 3584-23-4, TAZ 104
                                                    7189-82-4,
TΤ
     2,2'-Bis(o-chlorophenyl)-4,4',5,5'-tetraphenyl-1,2'-biimidazole
     10287-53-3, Ethyl-4-(dimethylamino)benzoate 24650-42-8, Irgacure 651
                          71868-10-5, Irgacure 907 75980-60-8,
     69432-40-2, TAZ 106
                                                    82799-44-8, Kayacure
     2,4,6-Trimethylbenzoyldiphenylphosphine oxide
                                         189146-15-4, Lucirin TPO
              119313-12-1, Irgacure 369
     RL: CAT (Catalyst use); USES (Uses)
        (contained in pigmented photosensitive polymer compn. for
        color filters, esp. black matrixes)
     209689-01-0P
ΤT
     RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
         (contained in pigmented photosensitive polymer compn
         . for color filters, esp. black matrixes)
     209689-00-9
 IΤ
     RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
         (contained in pigmented photosensitive polymer compn
         . for color filters, esp. black matrixes)
                                                   64401-02-1, NK Ester A-BPE 20
      29570-58-9, Dipentaerythritol hexaacrylate
 ΙT
     RL: TEM (Technical or engineered material use); USES (Uses)
         (contained in pigmented photosensitive polymer compn. for
         color filters, esp. black matrixes)
      209689-01-0P
 IT
      RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
      use); PREP (Preparation); USES (Uses)
         (contained in pigmented photosensitive polymer compn
         . for color filters, esp. black matrixes)
      209689-01-0 HCAPLUS
 RN
      2-Propenoic acid, 2-methyl-, phenylmethyl ester, polymer with
 CN
      ethenylbenzene and 2-propenoic acid, 2-hydroxy-3-[(2-methyl-1-oxo-2-
      propenyl)oxy]propyl ester (9CI) (CA INDEX NAME)
      CM
           1
      CRN 5919-74-4
      CMF C7 H12 O4
```

09/869549

2 CM

CRN 193278-95-4

(C11 H12 O2 . C8 H8 . C3 H4 O2)x CMF

CCI

CM 3

CRN 2495-37-6 CMF C11 H12 O2

$$\begin{array}{c|c} ^{H2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{O-} & \text{CH}_2 - \text{Ph} \end{array}$$

4 CM

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 5

CRN 79-10-7 CMF C3 H4 O2

IT 209689-00-9

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(contained in pigmented photosensitive polymer compn

. for color filters, esp. black matrixes)

209689-00-9 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and phenylmethyl CN 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 5919-74-4 CMF C7 H12 O4

CRN 65697-23-6

(C11 H12 O2 . C8 H8 . C4 H6 O2)x CMF

CCI PMS

CM 3

CRN 2495-37-6 CMF C11 H12 O2

$$\begin{array}{c|c} ^{H2C} & \text{O} \\ & || & || \\ \text{Me-} & \text{C-} & \text{C-} & \text{O-} & \text{CH}_2 - \text{Ph} \end{array}$$

CM 4

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

5 CM

CRN 79-41-4 CMF C4 H6 O2

L23 ANSWER 36 OF 55 HCAPLUS COPYRIGHT 2002 ACS

1998:256069 HCAPLUS AN

129:17103 DN

Cationic electrodeposition coating compositions having ΤI

resistance to cratering

Ishii, Toshiyuki; Tsutsui, Keisuke; Ito, Koji; Sugimoto, Katsuhiko; IN Nakano, Shinji

Nippon Paint Co., Ltd., Japan PΑ

Jpn. Kokai Tokkyo Koho, 8 pp. SO

CODEN: JKXXAF

Patent DT

LA Japanese

11/08/2002 Page 235 09/869549 SHOSHO ICM C09D005-44 IC ICS C09D201-00; C09D133-00 42-10 (Coatings, Inks, and Related Products) Section cross-reference(s): 55 PATENT NO. KIND DATE APPLICATION NO. DATE

JP 10110125 A2 19980428 JP 1996-284706 19961007 FAN.CNT 1 Coating materials contain film-forming resins, hardening agents, and 1-20% PΙ AB (vs. total resin solids) carboxy group-contg. acrylic resins having no.-av. mol. wt. 1000-50000 and acid no. 1-50 as crater preventers. a coating for phosphated galvanized steel contained an epoxy cationic resin, a polyurethane crosslinking agent, and azobiscyanovaleric acid-initiated Bu acrylate-2-hydroxyethyl methacrylate-Me methacrylate copolymer as a crater preventer. cationic electrodeposition coating crater preventer; carboxy acrylic resin ST crater preventer Azo compounds IT RL: CAT (Catalyst use); USES (Uses) (cationic electrodeposition coating compns. contg. cationic Galvanized steel IT RL: MSC (Miscellaneous) Electrodeposition IT

resins and hardening agents and crater preventers and pigment pastes) (cationic electrodeposition coating compns. contg. cationic resins and hardening agents and crater preventers and pigment pastes)

(cationic; cationic electrodeposition coating compns. contg. cationic resins and hardening agents and crater preventers and pigment pastes)

Polyurethanes, uses IT

RL: MOA (Modifier or additive use); USES (Uses) (crosslinking agents; cationic electrodeposition coating compns . contg. cationic resins and hardening agents and crater preventers and pigment pastes)

IT

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (ketimines, reaction products with epoxy resins and methylethanolamine; cationic electrodeposition coating compns. contg. cationic resins and hardening agents and crater preventers and pigment pastes)

Vinyl compounds, uses RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP IT (Preparation); USES (Uses) (polymers, carboxy group-contg.; cationic electrodeposition coating compns. contg. cationic resins and hardening agents and crater preventers and pigment pastes)

Crosslinking agents (polyurethanes; cationic electrodeposition coating compns. ΙT contg. cationic resins and hardening agents and crater preventers and pigment pastes)

Polymerization catalysts (radical; cationic electrodeposition coating compns. contg. IT cationic resins and hardening agents and crater preventers and pigment pastes) IT

Epoxy resins, uses RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (reaction products with methylethanolamine and diethylenetriamine Me iso-Bu diketimine; cationic electrodeposition coating compns. contg. cationic resins and hardening agents and crater preventers and

```
25068-38-6DP, Epo Tohto YD 014, reaction products with methylethanolamine
       pigment pastes)
IT
     and diethylenetriamine Me iso-Bu diketimine
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (Epo Tohto YD 014; cationic electrodeposition coating compns.
        contg. cationic resins and hardening agents and crater preventers and
        pigment pastes)
     2638-94-0, 4,4'-Azobis(4-cyanovaleric acid) 27189-40-8,
                                                        207614-38-8
                                           63462-44-2
     2,2'-Azobis(2-methylpropionic acid)
     207614-39-9
                   207614-40-2
     RL: CAT (Catalyst use); USES (Uses)
        (cationic electrodeposition coating compns. contg. cationic
        resins and hardening agents and crater preventers and pigment pastes)
     109-83-1DP, reaction products with epoxy resins and diethylenetriamine Me
                        10595-60-5DP, Diethylenetriamine methyl isobutyl
ፐጥ
     diketimine, reaction products with epoxy resins and methylethanolamine
     iso-Bu diketimine
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (cationic electrodeposition coating compns. contg. cationic
        resins and hardening agents and crater preventers and pigment pastes)
     25951-39-7P, Butyl acrylate-2-hydroxyethyl methacrylate-methyl
 ΙT
     methacrylate copolymer 207614-34-4P, Cyclohexyl
     acrylate-2-ethylhexyl acrylate-4-hydroxybutyl acrylate copolymer
     207614-35-5P, Acrylic acid-butyl methacrylate-2-ethylhexyl
     methacrylate-2-hydroxyethyl acrylate-2-methoxyethyl acrylate copolymer
     207614-36-6P, Acrylic acid-butyl acrylate-2-ethylhexyl
     methacrylate-2-hydroxyethyl acrylate-2-methoxyethyl acrylate copolymer
      207614-37-7P, Acrylic acid-butyl acrylate-2-ethylhexyl
      methacrylate-2-hydroxyethyl acrylate copolymer
      RL: IMF (Industrial manufacture); MOA (Modifier or additive
      use); PREP (Preparation); USES (Uses)
         (crater preventers; cationic electrodeposition coating compns
         . contg. cationic resins and hardening agents and crater preventers and
         pigment pastes)
      96-29-7DP, Methyl ethyl ketoxime, reaction products with polyurethanes
      30322-28-2DP, Hexamethylene diisocyanate-trimethylolpropane copolymer,
 TT
      reaction products with Me Et ketoxime
      RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
      (Preparation); USES (Uses)
          (hardening agents; cationic electrodeposition coating compns.
         contg. cationic resins and hardening agents and crater preventers and
         pigment pastes)
      25951-39-7P, Butyl acrylate-2-hydroxyethyl methacrylate-methyl
  IT
      methacrylate copolymer 207614-34-4P, Cyclohexyl
      acrylate-2-ethylhexyl acrylate-4-hydroxybutyl acrylate copolymer
      207614-35-5P, Acrylic acid-butyl methacrylate-2-ethylhexyl
      methacrylate-2-hydroxyethyl acrylate-2-methoxyethyl acrylate copolymer
      207614-36-6P, Acrylic acid-butyl acrylate-2-ethylhexyl
      methacrylate-2-hydroxyethyl acrylate-2-methoxyethyl acrylate copolymer
       207614-37-7P, Acrylic acid-butyl acrylate-2-ethylhexyl
       methacrylate-2-hydroxyethyl acrylate copolymer
       RL: IMF (Industrial manufacture); MOA (Modifier or additive
       use); PREP (Preparation); USES (Uses)
          (crater preventers; cationic electrodeposition coating compns
          . contg. cationic resins and hardening agents and crater preventers and
          pigment pastes)
       25951-39-7 HCAPLUS
       2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl
  RN
       2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
```

CRN 868-77-9 CMF C6 H10 O3

$$^{\rm H_2C}$$
 O  $^{\parallel}$   $\parallel$   $_{\rm Me^-\,C^-\,C^-\,O^-\,CH_2^-\,CH_2^-\,OH}$ 

2 CM

CRN 141-32-2 CMF C7 H12 O2

$$\overset{\text{O}}{\underset{n-\text{BuO}-}{\parallel}}\text{CH}=\text{CH}_2$$

3 CM

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{ccc} ^{\text{H}_2\text{C}} & \text{O} \\ \parallel & \parallel \\ \text{Me} - \text{C} - \text{C} - \text{OMe} \end{array}$$

207614-34-4 HCAPLUS RN

2-Propenoic acid, cyclohexyl ester, polymer with 2-ethylhexyl 2-propenoate and 4-hydroxybutyl 2-propenoate (9CI) (CA INDEX NAME) CN

CM 1

CRN 3066-71-5 CMF C9 H14 O2

2 СM

CRN 2478-10-6 CMF C7 H12 O3

$$_{\text{HO}-\text{ (CH}_2)_4-\text{O}-\text{C}-\text{CH}}^{\text{O}}$$

CRN 103-11-7 CMF C11 H20 O2

$$\begin{array}{c} \text{CH}_2-\text{O-C-CH} \Longrightarrow \text{CH}_2 \\ \text{CH}_2-\text{Bu-n} \end{array}$$

RN

2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-ethylhexyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-propenoate, 2-methoxyethyl CN 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 3121-61-7 CMF C6 H10 O3

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{MeO-CH}_2\text{--CH}_2\text{--O-C-CH} \end{array}$$

2 CM

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH----} \text{CH}_2 \end{array}$$

3 CM

CRN 688-84-6 CMF C12 H22 O2

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 5

CRN 79-10-7 CMF C3 H4 O2

RN 207614-36-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with butyl
2-propenoate, 2-hydroxyethyl 2-propenoate, 2-methoxyethyl 2-propenoate and
2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 3121-61-7 CMF C6 H10 O3

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{MeO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array}$$

CM 2

CRN 818-61-1 CMF C5 H8 O3

$$_{ ext{HO-CH}_2- ext{CH}_2- ext{O-C-CH}== ext{CH}_2}^{ ext{O}}$$

CRN 688-84-6 C12 H22 O2 CMF

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ & \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \\ & | \\ & \text{Et} - \text{CH} - \text{Bu-n} \end{array}$$

CM 4

CRN 141-32-2 CMF C7 H12 O2

$$\overset{\text{O}}{\underset{n-\text{BuO}-\text{C-CH}}{\parallel}}\text{CH}_2$$

5 CM

CRN 79-10-7 CMF C3 H4 O2

207614-37-7 HCAPLUS RN

2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate and 2-propenoic acid (9CI) (CA CN INDEX NAME)

CM 1

CRN 818-61-1 CMF C5 H8 O3

2 CM

688-84-6 CRN C12 H22 O2 CMF

CRN 141-32-2 CMF C7 H12 O2

$$\overset{\text{O}}{\underset{n-\text{BuO}-\text{C-CH}}{\parallel}}\text{CH}_2$$

CM

CRN 79-10-7 CMF C3 H4 O2

L23 ANSWER 37 OF 55 HCAPLUS COPYRIGHT 2002 ACS

1998:227006 HCAPLUS AN

128:295876 DN

Pigment-dispersed resin compositions with storage stability and ΤI their coatings useful at low temperature

Okuda, Tomohisa; Shimojo, Susumu; Ooshita, Akinao IN

Nippon Synthetic Chemical Industry Co., Ltd., Japan PΆ

Jpn. Kokai Tokkyo Koho, 12 pp. SO

CODEN: JKXXAF

DTPatent

LA Japanese

ICM C09D017-00 IC

ICS C08F002-44; C09C001-00; C09D183-02; C09D183-10

42-7 (Coatings, Inks, and Related Products)

FAN.CNT 1

APPLICATION NO. DATE KIND DATE PATENT NO. \_\_\_\_\_ A2 19980414 JP 1996-271391 19960920 JP 10095949 PΙ Title compns. comprise pigments and polymers prepd. by radical

polymn. of unsatd. compds. in the presence of silicate oligomers RO[Si(OR)2O]nR (R = H, C1-4 alkyl, Ph; n = 2-30) in org. solvents. Polymg. Bu acrylate (I), Bu methacrylate (II), iso-Bu methacrylate, and 3-methacryloxypropyltrimethoxysilane (III) in mineral terpene contg. a peroxide and hydrolyzed Si(OMe)4 condensate and mixing with TiO2 gave a compn., which was further mixed with a mineral terpene soln. contg. I-Me acrylate-Me methacrylate (IV)-styrene copolymer (prepd. in the presence of II-III-IV-2-ethylhexyl acrylate-stearyl methacrylate copolymer ΙT

TΤ

dispersant) to form a coating showing good storage stability at 20.degree. over 3 mo and forming films with good acid, alkali, solvent, water, soil, and weather resistance and no cracks or exfoliation after 10 cycles of soaking in 20.degree. water for 18 h, then leaving at -40.degree. for 3 h, and at 60.degree. for 3 h.

pigment dispersibility acrylic graft siloxane compn; storage stability acrylic coating pigment dispersion; cold resistance acrylic coating pigment dispersion

IT Polysiloxanes, uses

Polysiloxanes, uses RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(acrylic, graft, for pigment dispersions; manuf. of pigment-dispersed resin compns. for storage-stable and cold-resistant acrylic coatings)

IT Acrylic polymers, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coating binders; manuf. of pigment-dispersed resin compns. for storage-stable and cold-resistant acrylic coatings)

Coating materials

Coating materials (cold-resistant; manuf. of pigment-dispersed resin compns.

for storage-stable and cold-resistant acrylic coatings)

IT Pigments, nonbiological

(manuf. of pigment-dispersed resin compns. for storage-stable and cold-resistant acrylic coatings)

IT 51998-22-2P, Butyl acrylate-methyl acrylate-methyl methacrylate-styrene copolymer 86797-50-4P, Butyl methacrylate-isobutyl methacrylate-2-hydroxyethyl methacrylate copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coating binders; manuf. of pigment-dispersed resin

compns. for storage-stable and cold-resistant acrylic coatings) 202406-32-4P, Butyl methacrylate-2-ethylhexyl acrylate-2-

hydroxyethyl methacrylate-methyl methacrylate-stearyl methacrylate copolymer 202414-91-3P

RL: IMF (Industrial manufacture); MOA (Modifier or additive

use); PREP (Preparation); USES (Uses)
 (dispersant for prepn. of nonaq. acrylic coating binders; manuf. of
 pigment-dispersed resin compns. for storage-stable
 and cold-resistant acrylic coatings)

IT 206054-38-8P 206054-39-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(graft, for pigment dispersions; manuf. of pigment -dispersed resin compns. for storage-stable and cold-resistant acrylic coatings)

IT 13463-67-7, Titania, uses

RL: TEM (Technical or engineered material use); USES (Uses) (manuf. of pigment-dispersed resin compns. for storage-stable and cold-resistant acrylic coatings)

IT 86797-50-4P, Butyl methacrylate-isobutyl methacrylate-2-hydroxyethyl methacrylate copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coating binders; manuf. of **pigment**-dispersed resin **compns**. for storage-stable and cold-resistant acrylic coatings)

RN 86797-50-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-hydroxyethyl

2-methyl-2-propenoate and 2-methylpropyl 2-methyl-2-propenoate (9CI) INDEX NAME)

CM 1

CRN 868-77-9 CMF C6 H10 O3

$$^{\rm H_2C}$$
 O  $_{\parallel}$   $_{\parallel}$   $_{\rm Me^-\,C^-\,C^-\,O^-\,CH_2^-\,CH_2^-\,OH}$ 

CM 2

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 3

CRN 97-86-9 CMF C8 H14 O2

202406-32-4P, Butyl methacrylate-2-ethylhexyl acrylate-2hydroxyethyl methacrylate-methyl methacrylate-stearyl methacrylate copolymer

RL: IMF (Industrial manufacture); MOA (Modifier or additive

use); PREP (Preparation); USES (Uses) (dispersant for prepn. of nonaq. acrylic coating binders; manuf. of pigment-dispersed resin compns. for storage-stable

and cold-resistant acrylic coatings)

202406-32-4 HCAPLUS

RN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-ethylhexyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and octadecyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 32360-05-7 CMF C22 H42 O2

$$$^{\rm O}_{\rm CH_2}$$$
  $^{\rm CH_2}_{\rm H}$   $^{\rm He}_{\rm CH_2}$   $^{\rm 17-O-C-C-Me}$ 

CRN 868-77-9 CMF C6 H10 O3

CM 3

CRN 103-11-7 CMF C11 H20 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_2-\text{O-C-CH} == \text{CH}_2 \\ \parallel \\ \text{Et-CH-Bu-n} \end{array}$$

CM

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

5 CM

CRN 80-62-6 CMF C5 H8 O2

$$^{\text{H}_2\text{C}}_{||}$$
  $^{\text{O}}_{||}$   $^{\text{Me}-\text{C}-\text{C}-\text{OMe}}$ 

## IT 206054-39-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (graft, for pigment dispersions; manuf. of pigment

-dispersed resin compns. for storage-stable and cold-resistant acrylic coatings)

206054-39-9 HCAPLUS RN

2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, 2-methylpropyl 2-methyl-2-propenoate CN and silicic acid (H4SiO4) tetramethyl ester, graft (9CI) (CA INDEX NAME)

1 CM

CRN 868-77-9 CMF C6 H10 O3

CM 2

CRN 681-84-5 CMF C4 H12 O4 Si

3 CM

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH-----} \text{CH}_2 \end{array}$$

4 CM

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 5

97-86-9 CRN

CMF C8 H14 O2

$$\begin{array}{c} \text{O } \text{CH2} \\ \parallel \ \parallel \\ \text{i-BuO-C-C-Me} \end{array}$$

L23 ANSWER 38 OF 55 HCAPLUS COPYRIGHT 2002 ACS

1998:116000 HCAPLUS AN

128:206067 DN

Stable nonaqueous pigment dispersions and their coating ΤI compositions

Iwase, Takashi; Shintani, Takehiko; Uchiyama, Noriyuki; Ishikawa, Hiroyuki IN

Sakata Inx Corp., Japan PA

Jpn. Kokai Tokkyo Koho, 9 pp. SO

CODEN: JKXXAF

DT Patent

LA Japanese

ICM C09D017-00 IC ICS C09D011-10

42-13 (Coatings, Inks, and Related Products) CC

Section cross-reference(s): 46, 74

FAN.CNT 1

APPLICATION NO. DATE PATENT NO. KIND DATE JP 1996-208031 19960807 JP 10046095 A2 19980217 PΙ GΙ

Title dispersions comprise pigments, solvents, binders, and .gtoreq.0.2% AB (based on 100 parts pigments) dispersants which are graft copolymers having wt.-av. mol. wt. (Mw) of 3,000-100,000 and .gtoreq.5 mol% I (R = H, Me; X = C2-4 hydrocarbylene; Y 1, Y2 = H, halogen atom; n = 1-100) units. A dispersion comprising pigments, benzyl methacrylate-methacrylic acid copolymer, propylene glycol Me ether acetate, and ethylene oxide-Maruka Lyncur M S1 graft copolymer (II, with Mw 4,000) was kneaded with an initiator and NK Ester TMA-A to form a resist contg. 10% (based on total pigment) II and showing stable viscoelasticity after 1 mo at 40.degree., which was spread on a glass plate to a thickness of 0.9-1.1 .mu.m and cured with UV to form a film with good visible light transparency and heat resistance (250.degree. 1 h).

polyoxyalkylene polyvinylphenol graft polymer dispersant pigment; ST alkoxylated polyvinylphenol dispersant pigment resist stability; heat

resistance resist nonaq pigment dispersion

Acrylic polymers, uses IT RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(binder; oxyalkylene-grafted polyvinylphenol dispersant-contg. nonaq. pigment dispersions for heat-resistant and stable resists)

IT Vinyl compounds, uses

Vinyl compounds, uses

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)

(graft polymers; oxyalkylene-grafted polyvinylphenol dispersant-contg. nonaq. pigment dispersions for heat-resistant and stable resists)

IT Dispersing agents

Pigments, nonbiological

Resists

(oxyalkylene-grafted polyvinylphenol dispersant-contg. nonaq. pigment dispersions for heat-resistant and stable resists)

198996-44-0P, Benzyl methacrylate-methacrylic acid-trimethylolpropane triacrylate copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(binder; oxyalkylene-grafted polyvinylphenol dispersant-contg. nonaq. pigment dispersions for heat-resistant and stable resists)

TT 140456-37-7P 204135-60-4P 204135-61-5P 204135-62-6P 204135-63-7P 204135-64-8P 204135-65-9P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)

(oxyalkylene-grafted polyvinylphenol dispersant-contg. nonaq. pigment dispersions for heat-resistant and stable resists)

IT 204135-65-9P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (oxyalkylene-grafted polyvinylphenol dispersant-contg. nonaq. pigment dispersions for heat-resistant and stable resists)

RN 204135-65-9 HCAPLUS

2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 4-ethenylphenol and methyloxirane, graft (9CI) (CA INDEX NAME)

CM 1

CN

CRN 2628-17-3 CMF C8 H8 O

CM 2

CRN 868-77-9 CMF C6 H10 O3

CM 3

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СНЗ
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L23 ANSWER 39 OF 55 HCAPLUS COPYRIGHT 2002 ACS
     1997:632909 HCAPLUS
AN
DN -
     127:308467
     Coated pigments, pigment compositions, and coating
ΤI
     compositions
     Imagawa, Ippei; Koide, Masashi; Ueki, Katsuyuki; Machida, Yasuaki; Iguchi,
IN
     Akiyoshi
     Toyo Ink Mfg. Co., Ltd., Japan
PA
     Jpn. Kokai Tokkyo Koho, 10 pp.
SO
     CODEN: JKXXAF
DT
     Patent
LA
     Japanese
     ICM C09C003-10
IC
     42-6 (Coatings, Inks, and Related Products)
CC
FAN.CNT 1
                                            APPLICATION NO. DATE
                       KIND DATE
     PATENT NO.
                                            _____
     -----
                       ----
                                            JP 1996-60490
                                                            19960318
                       A2 19970922
PΙ
     Pigments are coated with a water-sol. reactive resin which is obtained by
AB
     reacting neutralized tertiary amine-contg. vinyl copolymers with an .alpha.,.beta.-unsatd. compd. having an epoxy group. Thus phthalocyanine
      dye Lionol Blue FG 7351 was coated with a water-sol. resin obtained by
      reacting glycidyl methacrylate with lauryl methacrylate-N, N-
      dimethylaminoethyl methacrylate copolymer to give a coated pigment of this
      invention, 40 parts of which was then mixed with 60 parts of polyethylene
      to give a master batch, 2 parts of which was added to 100 parts of
      polypropylene. The pigmented polypropylene resin then was fabricated into
      fibers. The coated pigments have various uses in coatings, inks, and
      recording materials.
      pigment vinyl polymer coated; dimethylaminoethyl methacrylate polymer
 ST
      pigment coating
      Carbon black, uses
 ΙT
      RL: TEM (Technical or engineered material use); USES (Uses)
         (Mitsubishi Carbon 10; coated pigments, pigment compns., and
         coating compns.)
      Alkyd resins
 ΙT
      RL: POF (Polymer in formulation); TEM (Technical or engineered material
      use); USES (Uses)
         (Phthalkyd 235-50; coated pigments, pigment compns., and
         coating compns.)
      Coating materials
 IT
      Electrophotographic toners
      Pigments, nonbiological
         (coated pigments, pigment compns., and coating compns
      Polypropene fibers, uses
 IT
      RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP
```

(Preparation); USES (Uses)

SHOSHO (coated pigments, pigment compns., and coating compns RL: POF (Polymer in formulation); TEM (Technical or engineered material IT use); USES (Uses) (coated pigments, pigment compns., and coating compns Thermal-transfer printing materials ΙT (inks; coated pigments, pigment compns., and coating compns.) ΙT Inks (lithog.; coated pigments, pigment compns., and coating compns.) Hydrocarbon waxes, uses ΙT RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (microcryst.; coated pigments, pigment compns., and coating compns.) (printing, thermal-transfer; coated pigments, pigment compns IT ., and coating compns.) RL: MOA (Modifier or additive use); TEM (Technical or engineered material 5280-80-8 TT use); USES (Uses) (Cromophtal Yellow GR; coated pigments, pigment compns., and coating compns.) 24937-78-8, Ethylene-vinyl acetate copolymer RL: POF (Polymer in formulation); TEM (Technical or engineered material IT use); USES (Uses) (DQDJ 7197, Suntec EVA; coated pigments, pigment compns., and coating compns.) 57455-37-5, Gunjo 2000 RL: MOA (Modifier or additive use); TEM (Technical or engineered material ITuse); USES (Uses) (Gunjo 2000; coated pigments, pigment compns., and coating compns.) 9002-88-4, UJ 790G RL: POF (Polymer in formulation); TEM (Technical or engineered material TΤ use); USES (Uses) (Hizex 2100, Sumikathene G 801, Sumikathene G 808; coated pigments, pigment compns., and coating compns.) RL: MOA (Modifier or additive use); TEM (Technical or engineered material 147-14-8 ΙT use); USES (Uses) (Lionol Blue FG 7351, Lionol Blue FG 7334P; coated pigments, pigment compns., and coating compns.) 25067-34-9, Ethylene-vinyl alcohol copolymer RL: POF (Polymer in formulation); TEM (Technical or engineered material ΙT use); USES (Uses) (Soarlite K; coated pigments, pigment compns., and coating 1047-16-1, Cinquasia Red YRT 759D 980-26-7, Fastogen super magenta RE 03 1309-37-1, Toda color 180ED, uses 6358-85-6, Lionol Yellow GGT IT 13463-67-7, Titanium oxide (TiO2), uses 14302-13-7, Lionol Green 2Y 301 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (coated pigments, pigment compns., and coating compns .) 9003-08-1, Melan 28 106565-43-9, Hipol J 740 9003-07-0, Noblen JH G ΙT 120250-43-3, Esbrite 500SB

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RL: POF (Polymer in formulation); TEM (Technical or engineered material
    use); USES (Uses)
        (coated pigments, pigment compns., and coating compns
     15625-89-5, Trimethylolpropane triacrylate
IT
    RL: TEM (Technical or engineered material use); USES (Uses)
        (coated pigments, pigment compns., and coating compns
     106-91-2DP, reaction products with amino group-contg. vinyl polymers
IT
     26100-53-8DP, reaction products with glycidyl methacrylate
     26246-82-2DP, N, N-Dimethylaminoethyl methacrylate-lauryl
     methacrylate copolymer, reaction products with glycidyl methacrylate
     196702-44-ODP, reaction products with glycidyl methacrylate
     RL: IMF (Industrial manufacture); MOA (Modifier or additive
     use); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (coating resin for pigments; coated pigments,
        pigment compns., and coating compns.)
     9003-53-6, Polystyrene
IΤ
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (impact-resistant; coated pigments, pigment compns., and
        coating compns.)
     79621-12-8, Tamanol 361
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
ΙT
     use); USES (Uses)
        (offset ink; coated pigments, pigment compns., and coating
        compns.)
     26100-53-8DP, reaction products with glycidyl methacrylate
TΨ
     26246-82-2DP, N, N-Dimethylaminoethyl methacrylate-lauryl
     methacrylate copolymer, reaction products with glycidyl methacrylate
     196702-44-ODP, reaction products with glycidyl methacrylate
     RL: IMF (Industrial manufacture); MOA (Modifier or additive
     use); TEM (Technical or engineered material use); PREP
      (Preparation); USES (Uses)
         (coating resin for pigments; coated pigments,
         pigment compns., and coating compns.)
      26100-53-8 HCAPLUS
      2-Propenoic acid, 2-methyl-, 2-(diethylamino)ethyl ester, polymer with
 RN
 CN
      ethenylbenzene (9CI) (CA INDEX NAME)
      CM
           1
      CRN 105-16-8
      CMF C10 H19 N O2
  H<sub>2</sub>C O
       Me-C-C-O-CH2-CH2-NEt2
           2
      CM
      CRN 100-42-5
      CMF C8 H8
```

 $H_2C == CH - Ph$ 

26246-82-2 HCAPLUS RN

2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with CN dodecyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

Page 251

CM

2867-47-2 CRN CMF C8 H15 N O2

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{Me}_2 \text{N-CH}_2 - \text{CH}_2 - \text{O-C-C-Me} \end{array}$$

2 CM

CRN 142-90-5 CMF C16 H30 O2

$$^{\rm O}$$
 CH2  $^{\rm H2}$  Me $^{\rm -}$  (CH2) 11  $^{\rm -}$  O  $^{\rm -}$  C  $^{\rm -}$  Me

196702-44-0 HCAPLUS RN

2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethyl 2-propenoate, methyl 2-methyl-2-propenoate, 2-(1-piperidinyl)ethyl 2-methyl-2-propenoate and 2-propenamide (9CI) (CA INDEX NAME) CN

CM 1

CRN 19416-48-9 CMF C11 H19 N O2

2 CM

CRN 2867-47-2 CMF C8 H15 N O2

$$\begin{array}{c} \text{O } \text{CH}_2 \\ \parallel \ \, \parallel \\ \text{Me}_2 \text{N-CH}_2 \text{-CH}_2 \text{-O-C-C-Me} \end{array}$$

CRN 140-88-5 CMF C5 H8 O2

CM 4

CRN 80-62-6 CMF C5 H8 O2

5 CM

CRN 79-06-1 CMF C3 H5 N O

L23 ANSWER 40 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:515056 HCAPLUS

Dispersing agent-treated organic and inorganic pigments and their coating 127:177780 DN ΤI compositions

Tanaka, Sukeyuki; Okayasu, Hisaaki; Sugiyama, Sae IN

Ajinomoto Co., Inc., Japan PA

Jpn. Kokai Tokkyo Koho, 8 pp. SO

CODEN: JKXXAF

DTPatent

Japanese LA

ICM C09C003-10 IC

ICS C09C001-36; C09D007-12

42-10 (Coatings, Inks, and Related Products) CC

FAN.CNT 1

APPLICATION NO. DATE KIND DATE PATENT NO. -----

- The pigments comprise org. pigments treated with dispersants having basic AB functional groups and inorg. pigments treated with dispersants having acidic functional groups. The coating compns. contain the treated pigments, solvents, and resins. Thus, an org. pigment (P-1) comprised poly(12-hydroxystearic acid) 3.3, Tioxide TR 92 66, xylene (I) 1.6, 2-methoxypropyl acetate (II) 1.6, and 90.0:150.0:155.4:45.2:159.5 Cardura E 10-isophthalic acid-adipic acid-trimethylolpropane-neopentyl glycol copolymer (PE-1) 27.5%. An inorg. pigment (P-6) comprised 19% I, 18% II, 18% a dispersant obtained by reacting 45.1 parts poly(.epsilon.-caprolactone) [prepd. in presence of Ti(OBu)4 and octylic acid] and 15.7 parts 390.0:210.0 glycidyl methacrylate-Bu methacrylate copolymer, 29.2% PE-1, and 15% FW 200 (carbon black). A coating comprising P-1 49.1, P-6 5.5, PE-1 27, U-Van 220 17.9, and Modaflow 0.6% was sprayed onto a Zn phosphate-treated steel plate, flow coated, and baked at 140.degree. to give teat pieces showing good adhesion to the substrate (JIS K 5400 8.5.2) and no flooding.
- dispersant treated org inorg pigment coating; disperse dye treatment ST coating flooding prevention; hydroxystearic acid homopolymer dispersant titania pigment; acrylic epoxy polyester dispersant carbon black
- Carbon black, uses ΙT RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (FW 200, treated with dispersants having basic functional groups; for coatings free of flooding)
- Epoxy resins, uses RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (acrylic-polyester-, dispersants, for inorg. pigments; for coatings free of flooding)
- Polyurethanes, uses TΤ Polyurethanes, uses RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (acrylic-polyester-, graft, dispersants, for inorg. pigments; for coatings free of flooding)
- Polyesters, uses IT RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (acrylic-polyurethane-, graft, dispersants, for inorg. pigments; for coatings free of flooding)
- Polyesters, uses IT RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (dispersants, for inorg. pigments; for coatings free of flooding)
- Coating materials IT (dispersing agent-treated org. and inorg. pigments and their coatings free of flooding)
- Aminoplasts IT RL: MOA (Modifier or additive use); USES (Uses) (dispersing agent-treated org. and inorg. pigments and their coatings free of flooding)
- Pigments, nonbiological ΙT (org. and inorg. pigments treated with dispersants for coatings free of flooding)
- Polyurethanes, uses IT RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (polyester-polyoxyalkylene-, dispersants, for inorg. pigments; for coatings free of flooding)
- Polyoxyalkylenes, uses IT RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP

```
(Properties); PREP (Preparation); USES (Uses)
        (reaction products with polycaprolactone and arom. aliph.
       polyisocyanates, dispersants, for org. pigments; for coatings free of
        flooding)
     65595-85-9P, Acrylic acid-butyl methacrylate-2-ethylhexyl
ΙT
    methacrylate-2-hydroxyethyl methacrylate-methyl methacrylate-styrene
                189700-71-8P
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     PRP (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (binders; dispersing agent-treated org. and inorg. pigments
        and their coatings free of flooding)
                                                27941-02-2,
     27924-99-8, Poly(12-hydroxystearic acid)
IT
     Poly(12-hydroxystearic acid), sru
     RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
        (dispersants, for inorg. pigments; for coatings free of flooding)
     502-44-3DP, 2-Oxepanone, reaction products with arom. aliph.
IT
     polyisocyanates and polyethylene glycol 25322-68-3DP, reaction products
     with polycaprolactone and arom. aliph. polyisocyanates
                                                             193466-21-6P
     193466-22-7P
     RL: IMF (Industrial manufacture); MOA (Modifier or additive
     use); PRP (Properties); PREP (Preparation); USES (Uses)
        (dispersants, for org. pigments; for coatings free of
        flooding)
     86753-77-7, Solsperse 3000 154213-94-2, Disperbyk 161
                                                               154213-97-5,
IT
              178966-23-9, Disperbyk 110
     RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
        (dispersants, for org. pigments; for coatings free of flooding)
     9003-08-1, U-Van 220
IT
     RL: MOA (Modifier or additive use); USES (Uses)
        (dispersing agent-treated org. and inorg. pigments and their coatings
        free of flooding)
     13463-67-7, Titanium oxide (TiO2), uses
IT
     RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
        (treated with dispersants having acidic functional groups; for coatings
        free of flooding)
     147-14-8, Heliogen Blue L 6700F 193907-08-3, Hostaperm Violet RLS
IT
     RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
        (treated with dispersants having basic functional groups; for coatings
        free of flooding)
     65595-85-9P, Acrylic acid-butyl methacrylate-2-ethylhexyl
IT
     methacrylate-2-hydroxyethyl methacrylate-methyl methacrylate-styrene
     copolymer
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     PRP (Properties); TEM (Technical or engineered material use); PREP
      (Preparation); USES (Uses)
         (binders; dispersing agent-treated org. and inorg. pigments
        and their coatings free of flooding)
     65595-85-9 HCAPLUS
RN
     2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenylbenzene,
CN
     2-ethylhexyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate,
     methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)
     CM
          1
      CRN 868-77-9
      CMF C6 H10 O3
```

CRN 688-84-6 CMF C12 H22 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{CH}_2-\text{O}-\text{C}-\text{C}-\text{Me} \\ \mid \\ \text{Et}-\text{CH}-\text{Bu-n} \end{array}$$

3 CM

CRN 100-42-5 CMF C8 H8

$$_{\rm H2C} = _{\rm CH} - _{\rm Ph}$$

CM

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

5 CM

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c} ^{\text{H}_2\text{C}} \circ \\ \parallel \ \parallel \\ ^{\text{Me}-\text{C}-\text{C}-\text{OMe} \end{array}$$

CM

CRN 79-10-7 CMF C3 H4 O2

193466-22-7P IT

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses) (dispersants, for org. pigments; for coatings free of flooding)

193466-22-7 HCAPLUS RN

09/869549

2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with CN (butoxymethyl)oxirane, 1,3-diisocyanatomethylbenzene, N-[3-(dimethylamino)propyl]-2-propenamide and 2-oxepanone, graft (9CI) (CA INDEX NAME)

CM 1

CRN 26471-62-5 CMF C9 H6 N2 O2 · CCI IDS

D1-Me

CM 2

3845-76-9 CRN CMF C8 H16 N2 O

$$_{\text{Me}_{2}\text{N}^{-}\text{ (CH}_{2})_{3}^{-}\text{NH}^{-}\text{C}^{-}\text{CH}}^{\text{O}}$$

CM 3

CRN 2426-08-6 CMF C7 H14 O2

CM

CRN 868-77-9 CMF C6 H10 O3

5 CM

CRN 502-44-3 CMF C6 H10 O2

L23 ANSWER 41 OF 55 HCAPLUS COPYRIGHT 2002 ACS

1997:499606 HCAPLUS AN

127:169081 DN

Pigment-dispersed radiation-sensitive composition for color ΤI filter

Suzuki, Nobuo; Kato, Eiichi IN

Fuji Photo Film Co., Ltd., Japan PA

Jpn. Kokai Tokkyo Koho, 39 pp. SO

CODEN: JKXXAF

DT Patent

Japanese LA

ICM G03F007-027 IC

ICS C08F290-04; G02B005-20; G03F007-004; G03F007-033

74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other CC Reprographic Processes)

Section cross-reference(s): 73

FAN.CNT 1

APPLICATION NO. DATE KIND DATE PATENT NO. JP 09179295 A2 19970711 JP 1995-333472 19951221

ΡI AΒ

The compn. contains a graft copolymer binder comprising (A) a monofunctional macromonomer with wt.-av. mol. wt. (Mw) .ltoreq.2 .times. 104, in which a polymg. double bond group CHc1:Cc2V0 [I; V0 = CO2, OCO, CH2OCO, CH2CO2, O, SO2, CO, CONHCO2, CONHCONH, CONHSO2, CONP3, SO2NP3 (P3 = H, hydrocarbon), C6H4; c1, c2 = H, halo, CN, hydrocarbon, CO2Z' which may link via a hydrocarbon group (Z' = H, hydrocarbon which may be substituted)] combines to 1 end of its principal chain contg. .gtoreq.1 of polymer components CHd1Cd2(V1Q1) (II) and CHd1Cd2Q0 [Q1 = C1-18 aliph., C6-12 arom.; d1 and d2 are the same meaning as c1 and c2 in I; Q0 = CN, CONH2, C6H4T {T = H, halo, hydrocarbon, alkoxy, C02Z" (Z" = alkyl, aralkyl, aryl)}] and (B) a monomer CHe1:Ce2(V2Q2) (V2 is the same contents as V1 in II; e1 and e2 are the same contents as c1 and c2 in II). A pigment is dispersed well in the compn. and the compn. shows good coatability and provides high quality color filters for liq.-crystal display devices and solid-state image pickup devices.

```
color filter radiation sensitive compn binder; optical filter
radiation sensitive compn binder; liq crystal display color
filter; solid state image pickup color filter; methacrylate graft polymer
binder color filter
```

IT Liquid crystal displays

(color filter for; pigment-dispersed radiation-sensitive compn . for color filter)

Optical filters TΤ

(color; pigment-dispersed radiation-sensitive compn. for color filter)

Optical imaging devices ΙT

(solid-state image pickup devices, color filter for; pigment-dispersed radiation-sensitive compn. for color filter)

137316-98-4P, 2,6-Dichlorophenyl methacrylate-propyl methacrylate-styrene IT graft copolymer

RL: MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(binder, compn. contg.; pigment-dispersed radiation-sensitive compn. for color filter)

112966-33-3P, Butyl methacrylate-methyl methacrylate graft copolymer 128338-41-0P, 2-Cyanoethyl methacrylate-ethyl methacrylate-propyl 128440-91-5P, Ethyl methacrylate-methyl methacrylate graft copolymer 137316-94-0P, 2-Chlorophenyl methacrylate graft copolymer methacrylate-propyl methacrylate graft copolymer 137317-21-6P, Acrylic acid-ethyl methacrylate-methyl methacrylate graft copolymer

RL: MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(binder; pigment-dispersed radiation-sensitive compn

for color filter)

9003-42-3P, Ethyl methacrylate homopolymer ΙT

RL: MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(comb-branched, binder; pigment-dispersed radiation-sensitive

compn. for color filter) 9011-14-7DP, Methyl methacrylate homopolymer, carboxy-terminated, reaction IT products with glycidyl methacrylate

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(macromonomer for binder prepn.; pigment-dispersed radiation-sensitive compn. contg. methacrylate graft copolymer binder for color

106-91-2DP, Glycidyl methacrylate, reaction products with TT carboxy-terminated alkyl methacrylate homopolymers 9003-42-3DP, Ethyl methacrylate homopolymer, carboxy-terminated, reaction products with 9003-63-8DP, Butyl methacrylate homopolymer, glycidyl methacrylate carboxy-terminated, reaction products with glycidyl methacrylate 25609-74-9DP, Propyl methacrylate homopolymer, carboxy-terminated, reaction products with glycidyl methacrylate 127909-19**-**7DP, 2,6-Dichlorophenyl methacrylate homopolymer, carboxy-terminated, reaction products with glycidyl methacrylate RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation);

RACT (Reactant or reagent)

(macromonomer for binder prepn.; pigment-dispersed radiation-sensitive

compn. for color filter) 128338-41-0P, 2-Cyanoethyl methacrylate-ethyl methacrylate-propyl IT methacrylate graft copolymer

RL: MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(binder; pigment-dispersed radiation-sensitive compn . for color filter)

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

128338-41-0 HCAPLUS RN

2-Propenoic acid, 2-methyl-, 2-cyanoethyl ester, polymer with ethyl CN 2-methyl-2-propenoate and propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 4513-53-5 CMF C7 H9 N O2

2 CM

CRN 2210-28-8 CMF C7 H12 O2

3 CM

CRN 97-63-2 CMF C6 H10 O2

L23 ANSWER 42 OF 55 HCAPLUS COPYRIGHT 2002 ACS

1997:483030 HCAPLUS AN

DN

Radiation-sensitive composition useful in production of color TI filter

Suzuki, Nobuo; Kato, Eiichi IN

Fuji Photo Film Co., Ltd., Japan PA

Jpn. Kokai Tokkyo Koho, 37 pp. SO

CODEN: JKXXAF

Patent DT

LA Japanese

ICM G03F007-033 IC

ICS C08F299-04; G02B005-20; G03F007-004; C08L033-04

74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other CC Reprographic Processes) Section cross-reference(s): 38

FAN.CNT 1

APPLICATION NO. DATE KIND DATE PATENT NO.

```
19951220
                                           JP 1995-331855
                            19970630
                       A2
     JP 09171253
PΤ
     The title compn. contains (a) a binder resin of a graft
AB
     copolymer resin with wt. av. mol. wt. (Mw) 3 .times. 104-1 .times. 106
     contg., as a polymer component, .gtoreq.1 of polyester-type macromonomers
     with Mw 1 .times. 103-1.5 .times. 104 CHf1:Cf2[X1Y1Z1(OCW1CO2W2O)R61] and
     CHf3:Cf4[X2Y2Z2(OCW3O)R62] [(OCW1CO2W2O) and (OCW3O) indicate repeating
     units; f1-4 = H, halo, CN, C1-8 hydrocarbon, CO2V1, CO2V2 which links via
     C1-8 hydrocarbons (V1, V2 = C1-18 hydrocarbon); X1, X2 = single bond, CO2,
     OCO, (CH2) n1CO2, (CH2) n2OCO (n1, n2 = 1-3), CONd1 (d1 = H, C1-12
     hydrocarbon), CONHCONH, CONHCO2, O, C6H4, SO2; Y1, Y2 = linking group; Z1,
     Z2 = CH2, O, NH; W1, W2 = divalent aliph. or divalent arom. group which
     may contain .gtoreq.1 linking group selected from O, S, Nd2 (d2 = H, C1-12
     hydrocarbon), SO2, CO2, OCO, CONHCO, NHCONH, CONd3, SO2Nd4, and Sid3d4
     (\bar{d}3, d4 = H, C1-12 \text{ hydrocarbon}), \text{ org. residue composed of these residues;}
     R61, R62 = H, hydrocarbon, COR63 (R63 = hydrocarbon); W3 = divalent aliph.
     group], (b) a radiation-sensitive compd., and (c) a pigment. The pigment
     is dispersed well as fine particles in the compn., and the
     compn. shows good coatability and provides high quality color
     filters.
     color filter radiation sensitive resist pigment; polyester acrylic graft
ST
     copolymer resist
     Polyesters, preparation
IT
     RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (acrylic; radiation-sensitive resist compn. contg. polyester
        graft copolymer and pigment for color filters)
     Optical filters
ΙT
        (radiation-sensitive resist compn. contg. polyester graft
        copolymer and pigment for color filters)
     Resists
IT
         (radiation-sensitive; radiation-sensitive resist compn.
        contg. polyester graft copolymer and pigment for color filters)
                                  135254-65-8P 135977-08-1P
     135254-63-6P. 135254-64-7P
IT
                                    145685-45-6P 145685-46-7P,
                    137299-33-3P
     135977-13-8P
     1,4-Butanediol-succinic anhydride copolymer 2-hydroxyethyl methacrylate
     monoester
     RL: PNU (Preparation, unclassified); RCT (Reactant); PREP
      (Preparation); RACT (Reactant or reagent)
         (macromonomer; prepn. of acrylic polyester graft copolymer)
                     135868-48-3P, 1,4-Butanediol-ethyl methacrylate-succinic
     135803-37-1P
IT
                                               135868-74-5P 135868-75-6P
     anhydride graft copolymer
                                  135868-70-1P
                                                                  141431-84-7P
                                    135868-78-9P
                                                   135868-81-4P
      135868-76-7P
                     135868-77-8P
                                                144857-85-2P
      144056-87-1P 144057-35-2P
                                  144820-47-3P
                                   144857-93-2P
                                                  144857-94-3P
                                                                  144857-95-4P
      144857-86-3P
                     144857-87-4P
                     144857-97-6P 144884-99-1P 193751-90-5P
      144857-96-5P
      193751-91-6P 193751-92-7P 193751-93-8P
      193751-94-9P 193751-95-0P 193751-96-1P
      193751-97-2P 193751-98-3P 193751-99-4P
      193752-00-0P 193752-01-1P 193752-02-2P
                                193752-06-6P
                                                 193752-08-8P
      193752-03-3P 193752-04-4P
                                                                  193752-19-1P
                                                   193752-17-9P
                     193752-13-5P
                                   193752-15-7P
      193752-10-2P
                                                 193752-27-1P
                                  193752-25-9P
      193752-21-5P 193752-23-7P
      193752-31-7P 193752-32-8P 193752-33-9P
      193752-34-0P 193752-35-1P 193752-36-2P
                                                 193752-46-4P
                                 193752-45-3P
      193752-37-3P 193752-38-4P
                                                                  193752-59-9P
                    193752-52-2P 193752-54-4P
                                                   193752-58-8P
      193752-49-7P
                                                 193752-63-5P
                                  193752-62-4P
      193752-60-2P 193752-61-3P
      193752-64-6P
```

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)

SHOSHO

(radiation-sensitive resist compn. contg. polyester graft copolymer and pigment for color filters)

1707-68-2, 2-(2-Chlorophenyl)-4,5-diphenylimidazolyl dimer IT 7-[(4-Chloro-6-(diethylamino)-s-triazin-2-yl)amino-3-phenylcoumarin 192386-54-2, 4-[o-Bromo-p-N, N-di(ethoxycarbonyl)aminophenyl]-2,6di(trichloromethyl)-s-triazine 193751-89-2, 4-[p-N,N-Di(ethoxycarbonyl)aminophenyl]-2,6-di(trichloromethyl)-s-triazine RL: TEM (Technical or engineered material use); USES (Uses) (radiation-sensitive resist compn. contg. polyester graft copolymer and pigment for color filters)

135254-64-7P 135977-08-1P 135977-13-8P ΙT 145685-46-7P, 1,4-Butanediol-succinic anhydride copolymer 2-hydroxyethyl methacrylate monoester RL: PNU (Preparation, unclassified); RCT (Reactant); PREP

(Preparation); RACT (Reactant or reagent) (macromonomer; prepn. of acrylic polyester graft copolymer)

RN 135254-64-7 HCAPLUS

Poly[oxy(1,5-dioxo-1,5-pentanediyl)oxy-1,6-hexanediyl], CN .alpha.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-.omega.hydroxy- (9CI) (CA INDEX NAME)

$$H_{2}C$$
 O OH O O OMME—  $C-C-O-CH_{2}-CH-CH_{2}$  O-C-( $CH_{2}$ )  $G-C-O-(CH_{2}$ )  $G-C-O-(CH_{2})$   $G-C-O-(C$ 

135977-08-1 HCAPLUS RN

2H-Pyran-2,6(3H)-dione, dihydro-, polymer with 1,6-hexanediol, CN 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester (9CI) NAME)

CM 1

5919-74-4 CRN CMF C7 H12 O4

CM 2

162811-60-1 CRN (C6 H14 O2 . C5 H6 O3)xCMF CCI PMS

3 CM

> CRN 629-11-8 C6 H14 O2 CMF

HO-(CH<sub>2</sub>)<sub>6</sub>-OH

CRN 108-55-4 CMF C5 H6 O3

135977-13-8 HCAPLUS RN

Octadecanoic acid, 12-hydroxy-, homopolymer, 2-[(1-oxo-2-CN propenyl)oxy]ethyl ester (9CI) (CA INDEX NAME)

1 CM

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} == \text{CH}_2 \end{array}$$

2 CM

27924-99-8 CRN

(C18 H36 O3)x CMF

PMS CCI

> CM 3

CRN 106-14-9 CMF C18 H36 O3

$$\begin{array}{c} \text{OH} \\ | \\ \text{Me- (CH}_2)_{\,5} - \text{CH- (CH}_2)_{\,10} - \text{CO}_2\text{H} \end{array}$$

145685-46-7 HCAPLUS RN 2,5-Furandione, dihydro-, polymer with 1,4-butanediol, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester (9CI) (CA INDEX NAME) CN

CM 1

CRN 868-77-9 CMF C6 H10 O3

$$^{\rm H_2C}$$
 O  $^{\parallel}$   $^{\parallel}$   $^{\rm Me-}$  C-C-O-CH $_2$ -CH $_2$ -OH

2

30327-76-5 CRN

(C4 H10 O2 . C4 H4 O3) x

PMS CCI

CM

CM 3

CRN 110-63-4 CMF C4 H10 O2

 $_{\rm HO}-$  (CH<sub>2</sub>)<sub>4</sub>-OH

CM

CRN 108-30-5 CMF C4 H4 O3

144057-35-2P 144884-99-1P 193751-90-5P IT

193751-91-6P 193751-92-7P 193751-93-8P

193751-94-9P 193751-95-0P 193751-96-1P

193751-97-2P 193751-98-3P 193751-99-4P

193752-00-0P 193752-01-1P 193752-02-2P

193752-03-3P 193752-04-4P 193752-23-7P

193752-32-8P 193752-33-9P 193752-34-0P

193752-35-1P 193752-36-2P 193752-38-4P

193752-61-3P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)

(radiation-sensitive resist compn. contg. polyester graft

copolymer and pigment for color filters)

144057-35-2 HCAPLUS RN

2-Propenoic acid, 2-methyl-, ethyl ester, polymer with CN

dihydro-2H-pyran-2,6(3H)-dione, 1,6-hexanediol and 2-propenamide, graft

(9CI) (CA INDEX NAME)

CM 1

CRN 629-11-8

CMF C6 H14 O2

 $_{\rm HO^-}$  (CH<sub>2</sub>)<sub>6</sub> $^-$ OH

2 CM

108←55-4 CRN

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

CMF C5 H6 O3

CM 3

CRN 97-63-2 CMF C6 H10 O2

CM 4

CRN 79-06-1 CMF C3 H5 N O

RN144884-99-1 HCAPLUS

2-Propenoic acid, 2-methyl-, 2-cyanoethyl ester, polymer with dihydro-2H-pyran-2,6(3H)-dione, 2-ethyl-1,3-propanediol and 2-methylphenyl CN 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

74937-80-7 CRN CMF C11 H12 O2

CM 2

CRN 4513-53-5 CMF C7 H9 N O2

CRN 2612-29-5 CMF C5 H12 O2

$$\begin{array}{c} \text{CH}_2\text{--OH} \\ | \\ \text{HO-CH}_2\text{--CH-Et} \end{array}$$

CM

CRN 108-55-4 CMF C5 H6 O3

RN 193751-90-5 HCAPLUS

2-Propenoic acid, 2-methyl-, methyl ester, polymer with CN .alpha.-hydro-.omega.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propoxy]poly[oxy-1,4-butanediyloxy(1,5-dioxo-1,5-pentanediyl)] and methyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

135327-14-9 CRN

CMF (C9 H14 O4)n C7 H12 O4

CCI PMS

CM

CRN 96-33-3 CMF C4 H6 O2

CRN 80-62-6 CMF C5 H8 O2

RN 193751-91-6 HCAPLUS

2-Propenoic acid, 2-methyl-, methyl ester, polymer with CN .alpha.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-.omega.hydroxypoly[oxy(1,5-dioxo-1,5-pentanediyl)oxy-1,6-hexanediyl], graft (9CI) (CA INDEX NAME)

CM 1

CRN 135254-64-7

CMF (C11 H18 O4)n C7 H12 O4

CCI PMS

2 CM

CRN 80-62-6 CMF C5 H8 O2

RN 193751-92-7 HCAPLUS

2-Propenoic acid, 2-methyl-, methyl ester, polymer with CN .alpha.-hydro-.omega.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propoxy]poly[oxy(2,2-dimethyl-1,3-propanediyl)oxy(1,4-dioxo-1,4-butanediyl)], graft (9CI) (CA INDEX NAME)

CM 1

CRN 135327-17-2

(C9 H14 O4)n C7 H12 O4 CMF

CCI PMS

PAGE 1-A OН СH2-О-С-СH2-СH2-С O-CH2-CH-CH2-O-C-

PAGE 1-B

$$\begin{array}{c} {\rm CH_2} \\ || \\ -{\rm C-Me} \end{array}$$

CM 2

CRN 80-62-6 C5 H8 O2 CMF

RN 193751-93-8 HCAPLUS

2-Propenoic acid, 2-methyl-, ethyl ester, polymer with CN .alpha.-hydro-.omega.-[2-hydroxy-3-[(2-methyl-1-oxo-2propenyl)oxy]propoxy]poly[oxy-1,2-ethanediyloxy(1,5-dioxo-1,5pentanediyl)] and methyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM

135327-19-4 CRN

CMF (C7 H10 O4)n C7 H12 O4

CCI

2 CM

CRN 97-63-2

C6 H10 O2 CMF

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CM 3

CRN 96-33-3 CMF C4 H6 O2

RN 193751-94-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, propyl ester, polymer with .alpha.-hydro-.omega.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propoxy]poly[oxy-1,4-butanediyloxy(1-oxo-1,2-ethanediyl)-1,4-phenylene(2-oxo-1,2-ethanediyl)], graft (9CI) (CA INDEX NAME)

CM 1

CRN 135327-21-8

CMF (C14 H16 O4)n C7 H12 O4

CCI PMS

PAGE 1-A

$$CH_{2}-C$$

$$CH_{2}-$$

PAGE 1-B

$$\begin{array}{c|c} {\rm O} & {\rm CH_2} \\ || & || \\ {\rm -C-C-Me} \end{array}$$

CM 2

CRN 2210-28-8 CMF C7 H12 O2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ & || & || \\ \text{Me-} & \text{C-} & \text{C-} & \text{OPr-} n \end{array}$$

RN 193751-95-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, phenyl ester, polymer with ethyl 2-propenoate and .alpha.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-.omega.-hydroxypoly[oxy(1,5-dioxo-1,5-pentanediyl)oxy-1,6-hexanediyl], graft (9CI) (CA INDEX NAME)

135254-64-7 CRN

(C11 H18 O4)n C7 H12 O4 CMF

CCI

2 CM

CRN 2177-70-0 CMF C10 H10 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ || & || \\ \text{PhO-C-C-Me} \end{array}$$

CM 3

CRN 140-88-5 CMF C5 H8 O2

RN193751-96-1 HCAPLUS

2-Propenoic acid, 2-methyl-, phenylmethyl ester, polymer with CN .alpha.-hydro-.omega.-[2-hydroxy-3-[(2-methyl-1-oxo-2propenyl)oxy]propoxy]poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)], graft (9CI) (CA INDEX NAME)

1 CM

101321-55-5 CRN

(C18 H34 O2)n C7 H12 O4 CMF

CCI PMS

2 CM

CRN 2495-37-6

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CMF C11 H12 O2

RN 193751-97-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with .alpha.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-.omega.-hydroxypoly[oxy(1-oxo-1,17-heptadecanediyl)], graft (9CI) (CA INDEX NAME)

CM 1

CRN 135377-47-8

CMF (C17 H32 O2)n C7 H12 O4

CCI PMS

CM 2

CRN 97-63-2 CMF C6 H10 O2

RN 193751-98-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, propyl ester, polymer with .alpha.-hydro-.omega.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propoxy]poly[oxy(1,1-dimethyl-3-oxo-1,3-propanediyl)], graft (9CI) (CA INDEX NAME)

CM 1

CRN 135349-64-3

CMF (C5 H8 O2)n C7 H12 O4

CCI PMS

CM 2

$$\begin{array}{c|c} ^{\text{H}2C} & \text{O} \\ & || & || \\ \text{Me-C-C-OPr-n} \end{array}$$

RN 193751-99-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with .alpha.-hydro-.omega.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propoxy]poly[oxy-1,3-propanediyloxy(3-ethyl-1,4-dioxo-1,4-butanediyl)] and 2-propenenitrile, graft (9CI) (CA INDEX NAME)

CM :

CRN 135349-66-5

CMF (C9 H14 O4)n C7 H12 O4

CCI PMS

CM 2

CRN 107-13-1 CMF C3 H3 N

$$H_2C = CH - C = N$$

CM 3

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 1

INDEX NAME)

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CRN 135349-68-7

(C10 H16 O4)n C7 H12 O4 CMF

CCI PMS

PAGE 1-B

CM 2

CRN 74937-80-7 CMF C11 H12 O2

CM

CRN 4513-53-5 CMF C7 H9 N O2

193752-01-1 HCAPLUS RN

CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with .alpha.-hydro-.omega.-[2-hydroxy-3-[(2-methyl-1-oxo-2propenyl)oxy]propoxy]poly[oxy(2,2-diethyl-1,3-propanediyl)oxy(1,4-dioxo-1,4-butanediyl)], graft (9CI) (CA INDEX NAME)

CM1

CRN 135349-70-1

CMF (C11 H18 O4)n C7 H12 O4

CCI PMS

PAGE 1-B

CM 2

CRN 97-63-2 CMF C6 H10 O2

RN 193752-02-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with .alpha.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-.omega.-hydroxypoly[oxy(1,5-dioxo-1,5-pentanediyl)oxy-1,6-hexanediyl] and 2-propenamide, graft (9CI) (CA INDEX NAME)

CM 1

CRN 135254-64-7

CMF (C11 H18 O4)n C7 H12 O4

CCI PMS

CM 2

CRN 97-63-2 CMF C6 H10 O2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ & \parallel & \parallel \\ \text{Me-} & \text{C--} & \text{C--} & \text{OEt} \end{array}$$

CRN 79-06-1 CMF C3 H5 N O

$$^{\mathrm{O}}_{||}_{\mathrm{H_2N-C-CH}}$$
  $_{\mathrm{CH_2}}$ 

RN 193752-03-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, phenylmethyl ester, polymer with .alpha.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)], graft (9CI) (CA INDEX NAME)

CM :

CRN 135349-72-3

CMF (C6 H10 O2)n C7 H12 O4

CCI PMS

CM 2

CRN 2495-37-6 CMF C11 H12 O2

RN 193752-04-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with .alpha.-hydro-.omega.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propoxy]poly[oxy-1,3-propanediyloxy(1,5-dioxo-1,5-pentanediyl)] and methyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 135349-74-5

CMF (C8 H12 O4)n C7 H12 O4

CCI PMS

CRN 97-63-2 CMF C6 H10 O2

CM 3

CRN 80-62-6 CMF C5 H8 O2

RN 193752-23-7 HCAPLUS

CN 5-Isobenzofurancarboxylic acid, 1,3-dihydro-1,3-dioxo-, 2-mercaptoethyl ester, telomer with butyl 2-methyl-2-propenoate, .alpha.-hydro-.omega.-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethoxy]poly[oxy(1-methyl-4-oxo-1,4-butanediyl)] and 2-propenamide, graft (9CI) (CA INDEX NAME)

CM 1

CRN 126969-35-5 CMF C11 H8 O5 S

CM 2

CRN 193752-22-6

CMF (C8 H14 O2 . (C5 H8 O2)n C6 H10 O3 . C3 H5 N O)x

CCI PMS

CM 3

CRN 135499-05-7

CMF (C5 H8 O2)n C6 H10 O3

CCI PMS

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 5

CRN 79-06-1 CMF C3 H5 N O

RN 193752-32-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-chlorophenyl ester, polymer with .alpha.-methyl-.omega.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propoxy]poly[oxy-1,3-propanediyloxy(1,5-dioxo-1,5-pentanediyl)], graft (9CI) (CA INDEX NAME)

CM 1

CRN 135349-90-5

CMF (C8 H12 O4)n C8 H14 O4

CCI PMS

CM 2

CRN 18967-23-2 CMF C10 H9 C1 O2

RN 193752-33-9 HCAPLUS

2-Propenoic acid, 2-methyl-, 2-bromophenyl ester, polymer with CN .alpha.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-.omega.hydroxypoly[oxy(1,5-dioxo-1,5-pentanediyl)oxy-1,6-hexanediyl], graft (9CI) (CA INDEX NAME)

CM 1

135254-64-7 CRN

CMF (C11 H18 O4)n C7 H12 O4

CCI

CM 2

CRN 126969-72-0 CMF C10 H9 Br O2

RN 193752-34-0 HCAPLUS

2-Propenoic acid, 2-methyl-, propyl ester, polymer with ethenylbenzene and CN .alpha.-hydro-.omega.-[2-hydroxy-3-[(2-methyl-1-oxo-2- $\verb|propenyl| oxy| propoxy| poly[oxy-1,6-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyl)-1,4-hexanediyloxy(1-oxo-1,2-ethanediyloxy(1-oxo-1$ phenylene(2-oxo-1,2-ethanediyl)], graft (9CI) (CA INDEX NAME)

CM 1

CRN 135349-93-8

CMF (C16 H20 O4)n C7 H12 O4

CCI PMS

PAGE 1-A

PAGE 1-B

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ || & || \\ -\text{C}-\text{C}-\text{Me} \end{array}$$

CM 2

CRN 2210-28-8 CMF C7 H12 O2

CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

RN 193752-35-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with .alpha.-hydro-.omega.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propoxy]poly[oxy(2-methyl-1,3-propanediyl)oxy(1,5-dioxo-1,5-pentanediyl)] and methyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 135349-95-0

CMF (C9 H14 O4)n C7 H12 O4

CCI PMS

PAGE 1-A OН  $O-CH_2-CH-CH_2-O-C-(CH_2)_3-C$ O-CH2-CH-CH2-O-C-

PAGE 1-B

CM 2

CRN 97-63-2 C6 H10 O2 CMF

$$\begin{array}{c} ^{\text{H}_2\text{C}} \circ \\ \parallel \ \parallel \\ \text{Me-C-C-OEt} \end{array}$$

CM 3

CRN 80-62-6 C5 H8 O2 CMF

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-} \text{C-} \text{C-} \text{OMe} \end{array}$$

193752-36-2 HCAPLUS RN

2-Propenoic acid, 2-methyl-, phenylmethyl ester, polymer with CN .alpha.-acetyl-.omega.-[2-hydroxy-3-[(2-methyl-1-oxo-2propenyl)oxy]propoxy]poly[oxy-1,2-ethanediyloxy(1,4-dioxo-2-butene-1,4diyl)], graft (9CI) (CA INDEX NAME)

CM

CRN 135349-97-2

CMF (C6 H6 O4)n C9 H14 O5

CCI

PAGE 1-B

— Ме

CM 2

CRN 2495-37-6 CMF C11 H12 O2

RN 193752-38-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with ethenylbenzene and .alpha.-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-.omega.-hydroxypoly[oxy(1,4-dioxo-2-butene-1,4-diyl)oxymethylene-1,4-phenylenemethylene], graft (9CI) (CA INDEX NAME)

CM 1

CRN 135327-23-0

CMF (C12 H10 O4)n C7 H12 O4

CCI PMS

PAGE 1-B

CM 2

CRN 100-42-5

CMF C8 H8

 $H_2C = CH - Ph$ 

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CRN 97-63-2 CMF C6 H10 O2

RN 193752-61-3 HCAPLUS

CN 5-Isobenzofurancarboxylic acid, 1,3-dihydro-1,3-dioxo-, 2-mercaptoethyl ester, telomer with butyl 2-methyl-2-propenoate, 4-hydroxypentanoic acid and 2-propenamide, graft (9CI) (CA INDEX NAME)

CM 1

CRN 126969-35-5 CMF C11 H8 O5 S

CM 2

CRN 135868-94-9

CMF (C8 H14 O2 . C5 H10 O3 . C3 H5 N O)x

CCI PMS

CM 3

CRN 13532-37-1 CMF C5 H10 O3

$$\begin{array}{c} \text{OH} \\ | \\ \text{Me-CH-CH}_2\text{--CH}_2\text{--CO}_2\text{H} \end{array}$$

CM 4

CRN 97-88-1 CMF C8 H14 O2

CRN 79-06-1 CMF C3 H5 N O

L23 ANSWER 43 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:478728 HCAPLUS

DN 127:115298

ΤI Radiation-sensitive composition useful in production of color filter

IN Suzuki, Nobuo; Kato, Eiichi

Fuji Photo Film Co., Ltd., Japan PA

SO Jpn. Kokai Tokkyo Koho, 32 pp. CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-033

ICS C08F299-04; G02B005-20; G03F007-004; C08L033-04

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) Section cross-reference(s): 38

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_\_ ----\_\_\_\_\_

PΙ JP 09171252 A2 19970630 JP 1995-331854 19951220

AΒ The title compn. contains (a) a binder resin of a graft copolymer with wt. av. mol. wt. (Mw) 5 .times. 104-1 .times. 106 contg., as a polymer component, .gtoreq.1 macromonomer with Mw 1 .times. 103-2.times. 104 CHf1:Cf2[XYO(WO)nR61] [f1, f2 = H, halo, CN, hydrocarbon, CO2R1 which may link via hydrocarbons; R1 = H, (substituted) hydrocarbon; X = CO2, OCO, (CH2)1OCO, (CH2)1CO2 (1 = 1-3), O, SO2, CO, CONQ1, SO2NQ1 (Q1 = H, hydrocarbon), CONHCO2, CONHCONH, C6H4; Y = linking group; (WO) indicates a repeating unit; n = 1-3, when n .gtoreq. 2, W is different from the W in the adjacent unit (WO); W = CHr1CHr2 (r1, r2 = H, alkyl), (CH2)4; R61 = H, hydrocarbon, COR62 (R62 = hydrocarbon)], (b) a radiation-sensitive compd., and (c) a pigment. The pigment is dispersed well as fine particles in the compn., and the compn. shows good coatability and provides high quality color filters. Thus, a radiation-sensitive compn. was prepd. by using graft copolymer HOOC(CH2)2CMe(CN)[{CH2CMe(CO2CH2Ph)}80{CH2CMe(CO2CH2CH2OH)} 20], dipentaerythritol pentaacrylate, 4-[o-bromo-p-N,Ndi(ethoxycarbonyl)aminophenyl]-2,6-di(trichloromethyl)-s-triazine, 7-[(4-chloro-6-(diethylamino)-s-triazin-2-yl)amino]-3-phenylcoumarin, C.I. Pigment Red 155, and C.I. Pigment Yellow 83.

color filter radiation sensitive resist; graft copolymer radiation ST sensitive resist; pigment radiation sensitive resist

Page 283 11/08/2002 ΙT Optical filters (radiation-sensitive resist compn. contg. graft polymer and pigment for color filter) ΙT Resists (radiation-sensitive; radiation-sensitive resist compn. contg. graft polymer and pigment) 60-24-2DP, 2-Mercaptoethanol, reaction products with acrylic graft IT 68-11-1DP, Thioglycolic acid, reaction products with acrylic graft copolymer 70-49-5DP, Mercaptosuccinic acid, reaction products with acrylic graft copolymer 107-96-0DP, 3-Mercaptopropanoic acid, reaction products with acrylic graft copolymer 147-93-3DP, o-Mercaptobenzoic acid, reaction products with acrylic graft copolymer 2638-94-0DP, reaction products with acrylic graft copolymer 4693-47-4DP, reaction products with acrylic graft copolymer 19706-80-0DP, 2,2'-Azobis(2cyanopropanol), reaction products with acrylic graft copolymer 55428-59-6DP, reaction products with acrylic graft copolymer 61551-69-7DP, reaction products with acrylic graft copolymer 104222-30-2DP, 2,2'-Azobis[2-methyl-N-(1,1-bis(hydroxymethyl)ethyl] propion amide, reaction products with acrylic graft copolymer 104222-32-4DP, 2,2'-Azobis[2-methyl-N-(1,1-bis(hydroxymethyl)-2hydroxyethyl]propionamide, reaction products with acrylic graft copolymer 118585-12-9DP, 2,2'-Azobis[2-(1-(2-hydroxyethyl)-2-imidazolin-2yl]propane, reaction products with acrylic graft copolymer 118585-14-1DP, 2,2'-Azobis[2-(5-hydroxy-3,4,5,6-tetrahydropyrimidin-2yl]propane, reaction products with acrylic graft copolymer 126969-33-3DP, reaction products with acrylic graft copolymer 138059-37-7DP, reaction products with acrylic graft copolymer 192386-11-1DP, Benzyl methacrylate-2-hydroxyethyl methacrylate graft copolymer, reaction products with azobis(cyanovaleric acid) 192386-12-2DP, 2-(2-Hydroxyethoxy)ethyl methacrylate-phenyl methacrylate graft copolymer, reaction products with azobis(cyanovaleric acid) 192386-15-5DP, reaction products with azobis(cyanovaleric acid) 192386-18-8DP, reaction products with azobis(cyanovaleric acid) 192386-21-3DP, reaction products with azobis(cyanovaleric acid) 192386-24-6DP, reaction products with azobis(cyanovaleric acid) 192386-27-9DP, reaction products with azobis(cyanovaleric acid) 192386-29-1DP, reaction products with thioglycolic acid 192386-32-6DP, reaction products with mercapto compd. 192386-35-9DP, reaction products with mercapto compd. 192386-37-1DP, reaction products with mercapto compd. 192386-39-3DP, reaction products with mercapto compd. 192386-41-7DP, reaction products with mercapto compd. 192386-43-9DP, reaction products with mercapto compd. 192386-46-2DP, reaction products with mercapto compd. 192386-49-5P 192386-53-1DP, reaction products with acrylic graft copolymer RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (radiation-sensitive resist compn. contg. graft polymer and pigment for color filter) IT 1707-68-2, 2-(2-Chlorophenyl)-4,5-diphenylimidazolyl dimer 4986-89-4 29570-58-9, Dipentaerythritol hexaacrylate 60506-81-2, Dipentaerythritol pentaacrylate 115168-59-7 192386-54-2 RL: TEM (Technical or engineered material use); USES (Uses) (radiation-sensitive resist compn. contg. graft polymer and pigment for color filter) IT 192386-11-1DP, Benzyl methacrylate-2-hydroxyethyl methacrylate

graft copolymer, reaction products with azobis(cyanovaleric acid)

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material

192386-35-9DP, reaction products with mercapto compd. 192386-46-2DP, reaction products with mercapto compd.

use); PREP (Preparation); USES (Uses)

(radiation-sensitive resist compn. contg. graft polymer and pigment for color filter)

RN 192386-11-1 HCAPLUS

2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with CN phenylmethyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

2495-37-6 CRN CMF C11 H12 O2

2 CM

CRN 868-77-9 CMF C6 H10 O3

RN 192386-35-9 HCAPLUS CN

2-Propenoic acid, 2-methyl-, butyl ester, polymer with N-[11-(2-hydroxypropoxy)undecyl]-2-methyl-2-propenamide, graft (9CI) (CA INDEX NAME)

CM 1

CRN 192386-34-8 CMF C18 H35 N O3

CM 2

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{ccc} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

RN 192386-46-2 HCAPLUS

2-Propenoic acid, 2-methyl-, ethyl ester, polymer with CN N-[4-(2-hydroxypropoxy)butyl]-2-methyl-2-propenamide, graft (9CI) SHOSHO 09/869549 Pa

Page 285 11/08/2002

INDEX NAME)

CM 1

CRN 192386-45-1 CMF C11 H21 N O3

CM 2

CRN 97-63-2 CMF C6 H10 O2

L23 ANSWER 44 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:471316 HCAPLUS

DN 127:163265

TI Aqueous ink-jet inks containing polyampholytes as pigment dispersants

IN Ma, Sheau-hwa; Hertler, Walter Raymond

PA E. I. Du Pont De Nemours and Company, USA

SO U.S., 7 pp. CODEN: USXXAM

DT Patent

LA English

IC ICM C03C017-00

NCL 523160000

CC 42-12 (Coatings, Inks, and Related Products)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
US 5648405 A 19970715 US 1992-998215 19921230

AB Aq. ink jet ink compns. comprising an aq. carrier medium, a colorant, such as a dye or a pigment, and a polyampholyte contg. at least one carboxylic acid group and at least one amine group (no.-av. mol. wt. <20,000) have improved pigment dispersion stability and flexibility in manufg. A typical polyampholyte was manufd. by polymg.

2-dimethylaminoethyl methacrylate 35.1, 2-phenylethyl methacrylate 49.2, and trimethylsilyl methacrylate 35.5 g in the presence of

and trimethylsilyl methacrylate 35.5 g in the presence of 1-methoxy-1-trimethylsiloxy-2-methyl-1-propene and tetrabutylammonium m-chlorobenzoate at 70.degree. in THF, and refluxing the reaction mixt. 8 h in the presence of MeOH, water, and dichloroacetic acid.

ST water thinned jet printing ink polyampholyte; pigment dispersant polyampholyte; trimethylsilyl methacrylate copolymer hydrolyzed polyampholyte ink; phenylethyl methacrylate copolymer polyampholyte ink; aminoethyl methacrylate copolymer polyampholyte ink; carboxylic acid amino polymer polyampholyte ink

IT Carbon black, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material

use); USES (Uses)

(FW 18; aq. ink-jet inks contg. polyampholytes as pigment dispersants)

TT Dispersing agents

Pigments, nonbiological

(aq. ink-jet inks contg. polyampholytes as pigment dispersants)

IΤ

(jet-printing, water-thinned; aq. ink-jet inks contq. polyampholytes as pigment dispersants)

TΤ Amphoteric materials

> RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polymeric; aq. ink-jet inks contg. polyampholytes as pigment dispersants)

ΙT 147-14-8

> RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(Endurophthal BT 617; aq. ink-jet inks contg. polyampholytes as pigment dispersants)

IT 100-44-7DP, Benzyl chloride, reaction products with hydrolyzed benzyl methacrylate-dimethylaminoethyl methacrylate-trimethylsilyl methacrylate copolymer 152110-69-5DP, hydrolyzed 193485-22-2DP, hydrolyzed

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aq. ink-jet inks contg. polyampholytes as pigment dispersants)

IT 193766-57-3, Monastral Magenta RT 143D

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(aq. ink-jet inks contg. polyampholytes as pigment dispersants)

IT 152110-69-5DP, hydrolyzed 193485-22-2DP, hydrolyzed

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aq. ink-jet inks contg. polyampholytes as pigment dispersants)

RN 152110-69-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 2-phenylethyl 2-methyl-2-propenoate and trimethylsilyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 13688-56-7 CMF C7 H14 O2 Si

O CH<sub>2</sub> Me3Si-O-C-C-Me

> CM 2

CRN 3683-12-3 CMF C12 H14 02

CRN 2867-47-2 CMF C8 H15 N O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{Me}_2\text{N--CH}_2\text{--CH}_2\text{--O-C-C-Me} \end{array}$$

RN 193485-22-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with phenylmethyl 2-methyl-2-propenoate and trimethylsilyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 13688-56-7 CMF C7 H14 O2 Si

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{Me}_3 \text{Si-O-C-C-Me} \end{array}$$

CM 2

CRN 2867-47-2 CMF C8 H15 N O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{Me}_2 \text{N-CH}_2 \text{-CH}_2 \text{-O-C-C-Me} \end{array}$$

CM 3

CRN 2495-37-6 CMF C11 H12 O2

L23 ANSWER 45 OF 55 HCAPLUS COPYRIGHT 2002 ACS AN 1997:374348 HCAPLUS

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127:18577
DN
     Photocurable compositions with excellent pigment dispersion and
ΤI
     heat stability
     Mori, Hirofumi; Kamei, Yoichiro
IN
PA
     Sekisui Fine Chemical Co., Ltd., Japan
     Jpn. Kokai Tokkyo Koho, 4 pp.
SO
     CODEN: JKXXAF
DT
     Patent
LA
     Japanese
IC
     ICM C08L033-08
         C08K009-04; C08L033-10; C09D005-00; C09D133-08; C09D133-10;
          C08L033-08; C08L061-22
     37-6 (Plastics Manufacture and Processing)
     Section cross-reference(s): 38, 42, 74
                                         APPLICATION NO. DATE
FAN.CNT 1
                     KIND DATE
     PATENT NO.
     JP 09100384 A2 19970415
PΙ
                                           JP 1995-258763 19951005
AB
     Title compns., useful as coatings, adhesives, sealants, resists,
     etc., comprise pigments coated by copolymers composed of vinyl acetate and
     CH2:CR1CO2CH2CHR2OH (R1, R2 = H, Me), water-sol. acrylic resins, and
     water-sol. diazo resins. Thus, 100 parts blue pigment dispersion composed
     of cyanine blue 95, dioxazine violet 5, polyoxyethylene monooleyl ether 20, and H2O 380 parts was treated with vinyl acetate 1, 2-hydroxypropyl
     methacrylate 2.3, and benzoyl peroxide 0.03 part at 80.degree. for 8 h to
     give a reaction mixt., 50 parts of which was blended with 4.5 part 10%
     diazo resin soln. and 50 parts acrylic resin soln. (prepd. by polymn. of
     2-hydroxyethyl methacrylate 80, methacrylamide 10, dimethylacrylamide 9,
     and acrylic acid 1 part in aq. AcOH) to give a photosensitive soln. Then,
     the soln. was spin-coated on a glass paste, irradiated by UV, and
     developed by a soln. contg. anionic surfactant and malic acid to give
     photomask.
ST
     photocurable compn pigment dispersion stability; acrylic resin
     photocurable compn pigment; diazo resin photocurable
     compn pigment; polymer coated pigment photocurable compn
     ; resist photocurable compn pigment coating
TΤ
     Photoresists
     Pigments, nonbiological
        (photocurable compns. with excellent pigment dispersion and
        heat stability)
     Adhesives
TΤ
     Coating materials
     Sealing compositions
        (photocurable; photocurable compns. with excellent pigment
        dispersion and heat stability)
IT
     Diazo compounds
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (resins; photocurable compns. with excellent pigment
        dispersion and heat stability)
ΙT
     153085-95-1P, Acrylic acid-dimethylacrylamide-2-hydroxyethyl
     methacrylate-methacrylamide copolymer
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     TEM (Technical or engineered material use); PREP (Preparation);
        (photocurable compns. with excellent pigment
        dispersion and heat stability)
ΙT
     523-42-2, Cyanine blue 215247-95-3, Dioxazine violet
     RL: MOA (Modifier or additive use); TEM (Technical or engineered material
     use); USES (Uses)
```

(photocurable compns. with excellent pigment dispersion and heat stability)

54392-91-5P, 2-Hydroxypropyl methacrylate-vinyl acetate copolymer IT RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(pigment coatings; photocurable compns. with excellent pigment dispersion and heat stability)

ΙT 153085-95-1P, Acrylic acid-dimethylacrylamide-2-hydroxyethyl methacrylate-methacrylamide copolymer RL: IMF (Industrial manufacture); POF (Polymer in formulation);

TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photocurable compns. with excellent pigment dispersion and heat stability)

RN 153085-95-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with N, N-dimethyl-2-propenamide, 2-methyl-2-propenamide and 2-propenoic acid (CA INDEX NAME)

CM 1

CRN 2680-03-7 CMF C5 H9 N O

$$\begin{array}{c} {}^{O} \\ || \\ \text{Me}_2 \text{N-C-CH-} \end{array} \text{CH}_2$$

CM 2

CRN 868-77-9 CMF C6 H10 O3

CM 3

CRN 79-39-0 CMF C4 H7 N O

CM

CRN 79-10-7 CMF C3 H4 O2

IT 54392-91-5P, 2-Hydroxypropyl methacrylate-vinyl acetate copolymer RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(pigment coatings; photocurable compns. with excellent pigment dispersion and heat stability)

54392-91-5 HCAPLUS RN

2-Propenoic acid, 2-methyl-, 2-hydroxypropyl ester, polymer with ethenyl CN acetate (9CI) (CA INDEX NAME)

CM 1

CRN 923-26-2 CMF C7 H12 O3

CM 2

CRN 108-05-4 CMF C4 H6 O2

Aco-CH-CH2

L23 ANSWER 46 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:545605 HCAPLUS

DN 125:181417

TI Photosensitive composition for lithographic printing plate

IN Nakatsuka, Masao

PΑ Okamoto Kagaku Kogyo Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp. CODEN: JKXXAF

DΤ Patent

LA Japanese

ICM G03F007-021 IC

ICS G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes) Section cross-reference(s): 38

FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_ PΙ JP 08160609 A2 19960621 JP 1994-299161 19941202 GI

The compn. contains a diazo polymer comprising I (Q = CHR4 or CHR4ACHR4; X = org. anion; R1-3 = H, alkyl, alkoxy, OH; R4 = H, alkyl, Ph; n.gtoreq. 1; A = CO2H- and/or OH-contg. arom. group), an org. polymer, a blue pigment, and a pyrazole deriv. II. The compn. showed good storage stability.

ST photosensitive diazo polymer lithog printing: yellow pigment

TT

ST photosensitive diazo polymer lithog printing; yellow pigment photosensitive lithog printing

IT Lithographic plates

(photosensitive **compn**. contg. diazo polymer and yellow pigment for lithog. printing plate)

IT 4314-14-1, Oil Yellow 3G

RL: MOA (Modifier or additive use); USES (Uses)

(photosensitive **compn**. contg. diazo polymer and yellow pigment for lithog. printing plate)

IT 112028-67-8P 125785-09-3DP, p-Diazodiphenylamine sulfate-formaldehyde-phydroxybenzoic acid copolymer, dodecylbenzenesulfonate salt 154925-71-0P 162223-15-6P, Acrylonitrile-2-hydroxyethyl

methacrylate-2-hydroxy-3-phenoxypropyl methacrylate-methacrylic

acid-methyl methacrylate copolymer

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive compn. contg. diazo polymer and yellow pigment for lithog. printing plate)

2390-60-5, Victoria Pure Blue BOH 150428-77-6, Oil Blue 613

RL: TEM (Technical or engineered material use); USES (Uses) (photosensitive compn. contg. diazo polymer and yellow

pigment for lithog. printing plate)

IT 154925-71-0P 162223-15-6P, Acrylonitrile-2-hydroxyethyl

methacrylate-2-hydroxy-3-phenoxypropyl methacrylate-methacrylic

acid-methyl methacrylate copolymer

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive compn. contg. diazo polymer and yellow pigment for lithog. printing plate)

RN 154925-71-0 HCAPLUS

CN 1,2-Cyclohexanedicarboxylic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 2-hydroxyethyl 2-methyl-2-propenoate, 4-(1-methylethenyl)phenol, methyl 2-methyl-2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

ΙT

CRN 51252-88-1 CMF C14 H20 O6

2 CM

CRN 4286-23-1 CMF C9 H10 O

3 CM

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 107-13-1 CMF C3 H3 N

CM 5

CRN 80-62-6 CMF C5 H8 O2

RN 162223-15-6 HCAPLUS

2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl CN 2-methyl-2-propenoate, 2-hydroxy-3-phenoxypropyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 16926-87-7 CMF C13 H16 O4

CM 2

CRN 868-77-9 C6 H10 O3 CMF

CM 3

CRN 107-13-1 CMF C3 H3 N

$$H_2C = CH - C = N$$

CM

CRN 80-62-6 CMF C5 H8 O2

CM5

CRN 79-41-4

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L23 ANSWER 47 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:462241 HCAPLUS

DN 125:143633

TI A polylactone having amino groups, its preparation, and coating and printing ink compositions containing it

IN Matsui, Hideki

PA Daicel Chemical Industries, Ltd., Japan

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C08G063-91

ICS C08G063-685; C09D167-04; C09D011-10

CC 35-8 (Chemistry of Synthetic High Polymers) Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO. DATE			
ΡI	EP 713894	A2	19960529	EP 1995-402635 19951122			
	EP 713894	<b>A</b> 3	19960731				
	R: DE, ES,	GB					
	JP 08143651	A2	19960604	JP 1994-311302 19941122			
	JP 08143813	A2	19960604	JP 1994-311303 19941122			
	US 6194539	B1	20010227	US 1995-560110 19951117			
PRAI	JP 1994-311302	Α	19941122				
	JP 1994-311303	Δ	19941122				

- AB The polylactone is excellent in color hue, and can be employed in fields such as coatings, inks, UV-curable or electron beam-curable resins, etc., in which the color hue becomes a serious problem. It is prepd. by Michael addn. of a (meth)acrylate group-terminated lactone-derived polyester with an amine or polyamine. Thus, a mixt. of 2-hydroxyethyl acrylate 232, .epsilon.-caprolactone 684, SnCl2 0.009, and methylhydroquinone 1 part was polymd. at 100.degree., and the product was cooled to 50.degree. and treated with 86 parts piperazine to give a product with OH value 112 mg KOH/g and APHA value 80.
- ST amino contg polylactone; pigment dispersant amino polylactone; coating compn amino polylactone; printing ink amino polylactone; Michael addn piperazine polylactone acrylate
- IT Coating materials

Dispersing agents

(prepn. of amino group-contg. polylactones and coatings and inks contg. them as pigment dispersants)

IT Polyesters, preparation

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(amino-contg., prepn. of amino group-contg. polylactones and coatings and inks contg. them as pigment dispersants)

IT Polyesters, preparation

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(polyamine-, graft; prepn. of amino group-contg. polylactones and

coatings and inks contg. them as pigment dispersants)

IT Polyamines

> RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(polyester-, graft; prepn. of amino group-contg. polylactones and coatings and inks contg. them as pigment dispersants)

ΙT

(printing, prepn. of amino group-contg. polylactones and coatings and inks contq. them as pigment dispersants)

164218-30-8P, Aziridine-.epsilon.-caprolactone graft copolymer ΙT 179167-61-4P, Aziridine-.epsilon.-caprolactone-4-methyl-.epsilon.caprolactone graft copolymer 179463-07-1P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(comblike; prepn. of amino group-contg. polylactones and coatings and inks contg. them as pigment dispersants)

109-07-9DP, 2-Methylpiperazine, reaction products with acrylate-terminated IT 110-70-3DP, N,N'-Dimethylethylenediamine, reaction polycaprolactone products with acrylate-terminated polycaprolactone 110-85-0DP, Piperazine, reaction products with acrylate-terminated polycaprolactone 7209-38-3DP, 1,4-Bis(3-aminopropyl)piperazine, reaction products with acrylate-terminated polycaprolactone 110489-05-9DP, reaction products with diamines 179167-56-7P 179167-57-8P 179167-58-9P 179167-59-0P 179167-60-3P **179463-06-0DP**, reaction products with piperazine

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(prepn. of amino group-contg. polylactones and coatings and inks contg. them as **pigment** dispersants)

IT 110489-05-9DP, reaction products with diamines

179463-06-0DP, reaction products with piperazine

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(prepn. of amino group-contg. polylactones and coatings and inks contg. them as **pigment** dispersants)

110489-05-9 HCAPLUS RN

CN 2-Oxepanone, homopolymer, 2-[(1-oxo-2-propenyl)oxy]ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 818-61-1 CMF C5 H8 O3

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array}$$

CM 2

CRN 24980-41-4

CMF (C6 H10 O2)x

CCI PMS

> CM 3

CRN 502-44-3 CMF C6 H10 O2

RN 179463-06-0 HCAPLUS

CN 2-Oxepanone, homopolymer, 4-[(1-oxo-2-propenyl)oxy]butyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 2478-10-6 CMF C7 H12 O3

$$^{\circ}_{||}$$
 $^{\circ}_{||}$ 
 $^{\circ}_{||}$ 
 $^{\circ}_{||}$ 
 $^{\circ}_{||}$ 
 $^{\circ}_{||}$ 
 $^{\circ}_{||}$ 

CM 2

CRN 24980-41-4 CMF (C6 H10 O2)x CCI PMS

CM 3

CRN 502-44-3 CMF C6 H10 O2



L23 ANSWER 48 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:262245 HCAPLUS

DN 124:328477

TI Colored resist composition

IN Nakamura, Kazuhiko

PA Sekisui Chemical Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS G02B005-20; G03F007-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE ----------

JP 08036257 A2 19960206 JP 1994-169515 19940721 PΙ

The resist compn. contains a photosensitive polymer, .gtoreq.1 AB black pigment with sp. resistance .gtoreq.102.OMEGA.-cm, and .gtoreq.2 color pigments of brown, blue, violet, yellow, red, orange, and green and forms color resist film with sp. resistance .gtoreq.106.OMEGA.-cm after exposure. The colored resist compn. shows good insulating and light-shielding properties and is useful for color filters.

resist color filter resistance pigment ST

TΤ

(photo-, colored resist compn. contq. pigment with high resistance)

ΙT 7727-43-7, Barium sulfate

> RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(body color pigment; colored resist compn. contg. pigment with high resistance)

147-14-8, Pigment Blue 15 IT 6358-30-1, Pigment Violet 23 6358-85-6, Pigment Yellow 12 12227-89-3, Pigment Black 11 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(colored resist compn. contg. pigment with high resistance)

TΤ 159293-83-1P

> RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(colored resist compn. contg. pigment with high resistance)

IT 159293-83-1P

> RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(colored resist compn. contg. pigment with high resistance)

RN 159293-83-1 HCAPLUS

2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with CN N-[3-(dimethylamino)propyl]-2-methyl-2-propenamide, N, N-dimethyl-2propenamide and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 5205-93-6 CMF C9 H18 N2 O

O CH<sub>2</sub>  $Me_2N-(CH_2)_3-NH-C-C-Me$ 

> CM 2

CRN 2680-03-7 CMF C5 H9 N O см з

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 79-10-7 CMF C3 H4 O2

L23 ANSWER 49 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:137142 HCAPLUS

DN 122:136192

TI Preparation of polymers for dispersing pigments in coating compositions

IN Yoshida, Michiro; Nakajima, Shunichi; Oosumi, Tatsuya; Komuda, Hitoshi

PA Sanyo Chemical Ind Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F220-18

CC 42-5 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 35

FAN.CNT 1

PΙ

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 06211942 A2 19940802 JP 1993-24902 19930119

AB The title polymers, having wt.-av. mol. wt. 5000-10,000, polydispersity .ltoreq.2.2, and good compatibility with coating resins, are prepd. by dropwise addn. of mixts. of Cl-4 alkyl (meth)acrylates, C6-20 alkyl (meth)acrylates, and radical initiators to org. solvents (m. 75-150.degree.) at a temp. below the solvent m.p. in a pressurized (1-10 atm) reactor. A copolymer was prepd. from a mixt. of Me methacrylate 65, iso-Bu methacrylate 10, dodecyl methacrylate 18, 2-hydroxyethyl methacrylate 7, and methacrylic acid 1 part by using tert-butylperoxy isobutyrate as the initiator and a 30:70 AcoBu-xylene mixt. as the solvent. A compn. contg. the copolymer and an oil-modified alkyd resin gave a transparent coating.

ST pigment dispersant vinyl copolymer coating; methacrylic acid copolymer dispersant pigment; hydroxyethyl methacrylate copolymer dispersant pigment; dodecyl methacrylate copolymer dispersant pigment; acrylic polymer dispersant pigment coating ΙT Pigments (dispersants; prepn. and use of acrylic polymers as) IT Polymerization catalysts (radical, for acrylic compds. in prepn. of pigment dispersants) 80-43-3, Dicumyl peroxide 109-13-7 2372-21-6, tert-ΙT Butylperoxyisopropyl carbonate RL: CAT (Catalyst use); USES (Uses) (catalysts; for polymn. of acrylic resins as pigment dispersants) 9004-70-0, Nitrocellulose **26062-01-1** TΤ 27136-15-8, Butyl acrylate-methyl methacrylate-styrene copolymer 28430-58-2, Methacrylic acid-methyl methacrylate-vinyl acetate copolymer 29012-39-3D, Glycerol-phthalic acid copolymer, castor oil-modified RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (coatings; pigment-dispersing resins for use in) IT 27102-65-4D, Pentaerythritol-phthalic acid copolymer, soybean oil-modified RL: TEM (Technical or engineered material use); USES (Uses) (coatings; pigment-dispersing resins for use in) IT 160770-30-9P 160770-31-0P 160770-32-1P RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (dispersants; for pigments in coating compns.) TΤ 9003-08-1, Melan 28 RL: TEM (Technical or engineered material use); USES (Uses) (pigment-dispersing resins for use in coatings contg.) ΤT 26062-01-1 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (coatings; pigment-dispersing resins for use in) RN 26062-01-1 HCAPLUS CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME) CM 1 CRN 818-61-1 CMF C5 H8 O3

 $\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH} \end{array} \\ \text{CH}_2$ 

CM 2

CRN 141-32-2 CMF C7 H12 O2

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{\text{H}_2\text{C}} & \text{O} \\ \parallel & \parallel \\ \text{Me-C-C-OMe} \end{array}$$

CM 4

CRN 79-10-7 CMF C3 H4 O2

160770-30-9P 160770-31-0P 160770-32-1P IT

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dispersants; for pigments in coating compns.)

160770-30-9 HCAPLUS RN

2-Propenoic acid, 2-methyl-, polymer with dodecyl 2-methyl-2-propenoate, CN 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-methylpropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

1 CM

CRN 868-77-9 CMF C6 H10 O3

CM 2

CRN 142-90-5 CMF C16 H30 O2

$$^{\circ}$$
 O CH2  $^{\circ}$  || || Me- (CH2) 11-0-C-C-Me

CRN 97-86-9 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \textbf{i-BuO-C-C-Me} \end{array}$$

CM

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ & \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{OMe} \end{array}$$

CM 5

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

160770-31-0 HCAPLUS RN

2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with CN 2-[2-(2-hydroxyethoxy)ethoxy]ethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, octyl 2-methyl-2-propenoate and 2-propenamide (9CI) (CA INDEX NAME)

CM 1.

CRN 2351-42-0 CMF C10 H18 O5

CRN 2157-01-9 CMF C12 H22 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || \\ \text{Me- (CH}_2) \, \text{7-O-C-C-Me} \end{array}$$

CM 3

CRN 585-07-9 CMF C8 H14 O2

CM 4

CRN 80-62-6 C5 H8 O2 CMF

CM 5

CRN 79-06-1 CMF C3 H5 N O

RN160770-32-1 HCAPLUS

Hydrazinium, 1,1,1-trimethyl-2-(2-methyl-1-oxo-2-propenyl)-, inner salt, CN polymer with cyclohexyl 2-methyl-2-propenoate, ethenylbenzene, 2,5-furandione, 2-(2-hydroxyethoxy)ethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and octyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 16898-44-5 CMF C7 H14 N2 O

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ \text{Me}_3 + \text{N} - \text{N} - \text{C} - \text{C} - \text{Me} \end{array}$$

CRN 2351-43-1 CMF C8 H14 O4

CM 3

CRN 2157-01-9 CMF C12 H22 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ \text{Me- (CH}_2) \, \text{7-O-C-C-Me} \end{array}$$

CM 4

CRN 108-31-6 CMF C4 H2 O3

CM

CRN 101-43-9 CMF C10 H16 O2

CM

CRN 100-42-5

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SHOSHO 09/869549 Page 304 11/08/2002

CMF C8 H8

 $H_2C = CH - Ph$ 

CM 7

CRN 80-62-6 CMF C5 H8 O2

 $\begin{array}{c|c} ^{H_2C} & \text{O} \\ & \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{OMe} \end{array}$ 

L23 ANSWER 50 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 1985:525138 HCAPLUS

DN 103:125138

TI Low temperature cure coating system suitable for metal and plastic substrates

IN Rehfuss, John W.; Hazelwood, Louis S.; Price, Martin B.; Zilke, Robert W., Jr.

PA Reliance Universal, Inc., USA

SO U.S., 6 pp. Cont. of U.S. Ser. No. 470,782 abandoned. CODEN: USXXAM

DT Patent

LA English

IC ICM B32B027-36

NCL 428412000

CC 42-7 (Coatings, Inks, and Related Products) Section cross-reference(s): 38, 55, 56

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4521489	A	19850604	US 1984-619699	19840613
PRAI	US 1982-348604		19820212		
	IIS 1983-470782		19830301		

AB Coating systems for plastics and metals comprise primers contg. nonacid-catalyzed thermoplastic polymers with min. film-forming temps. (MFFT) 10-55.degree. C and top coatings contg. 52-78.5% aq. dispersions of polymers from functional and nonfunctional group-contg. monomers, 1.5-8% nonionic surfactants for stability of the dispersion at pH 1.0-10, and 20-40% substituted amides (optionally alkoxylated or etherified) or their mixts. with highly alkylated polymeric methoxymethylated substituted amines (optionally alkoxylated or etherified). Thus, a slurry contg. water 36, Bu Carbitol 12, iso-PrOH 12, poly(vinyl pyrrolidone) 21, and amphoteric sulfonated surfactants 6, ethoxylated octylphenol(I, ethylene oxide content 40 mols.) 2, deformer 4, SiO2 88, TiO2 20, methoxymethylurea [9011-05-6] 107, and org. wax 12 g was mixed with sufficient water for proper grinding viscosity, stirred 10 min to effect a 6+ Hegman grind, and letdown with 400 g 40% solids copolymer (II) [97972-64-0] emulsion prepd. from acrylamide 26, methacrylic acid 11, styrene 49, Me methacrylate 50, Bu methacrylate 180, hydroxyethyl methacrylate 21, and Et acrylate 37 g in the presence of methoxylated nonylphenyl (ethylene oxide content 6 and 40 mols). This compn. was neutralized with 2 q dimethylethanolamine, and mixed with 70% p-toluenesulfonic acid to pH

Page 305

1.5-2.5 to give a top coating compn. Steel, Al, polyester, Lexan polycarbonate, Noryl [52439-05-1], polystyrene [9003-53-6], and ABS polymer [9003-56-9] were primered with a compn. contg. 185 g mixt. (MFFT 45.degree. C) of 2 acrylic polymer emulsions, 50 g glycol ether, 2 g NH4OBz, 23 g water and a pigment slurry contg. Bu Cellosolve 30, water-solubilized emulsions (MFFT 20-30.degree. C) 26, 23% aq. NH3 1, amine 1, alk.-neutralized maleic anhydride-isobutylene adduct 6, ethoxylated I (ethylene oxide content 9-40 mols.) 4, defoamer 2, ZnO 9, TiO2 140, Zn molybdate 35, mica 17, Mg silicate 23, SiO2 16, and acrylic polymer emulsions (MFFT 47-57.degree. C) 350 g, air-dried 15 mins., baked 5 min at 150.degree. F, overcoated with the II topcoating compn ., and baked 30 mins at 150.degree. F to give a 1.5-mil topcoating with Gardner 60.degree. gloss 17, Eagle pencil hardness H, Gardner direct impact strength 80 in.-lbs, elongation 4.5% on a 1/in. conical mandril, and 1,1,1-trichloroethane resistance 50 double rubs.

acrylic dispersion coating metal plastic; plastic substrate acrylic STdispersion coating; steel acrylic dispersion coating; aluminum acrylic dispersion coating; polyester substrate acrylic dispersion coating; polycarbonate substrate acrylic dispersion coating; Noryl substrate acrylic dispersion coating; polystyrene substrate acrylic dispersion coating; ABS substrate acrylic dispersion coating

Polycarbonates IT

Polyesters, uses and miscellaneous

Polyoxyphenylenes

RL: USES (Uses)

(coatings for, low-temp.-curing acrylic polymer aq. dispersions as)

ΙT Crosslinking agents

(methoxymethylurea and formaldehyde-melamine resin, for acrylic polymer aq. dispersion coatings, for plastics and metals)

IT Coating materials

> (water-thinned, acrylic polymer, low-temp.-curing, for plastics and metals)

IΤ 7429-90-5, uses and miscellaneous 9003-53-6 9003-56-9 52439-05-1 RL: USES (Uses)

(coatings for, low-temp.-curing acrylic polymer ag. dispersions as)

IT 9011-05-6

RL: MOA (Modifier or additive use); USES (Uses) (crosslinking agents, for acrylic polymer aq. dispersion coatings for plastics and metals)

97972-63-9P 97972-64-0P IT

RL: PREP (Preparation)

(manuf. of, for low-temp.-curing aq. dispersion coatings for plastics and metals)

ΙT 97972-63-9P 97972-64-0P

RL: PREP (Preparation)

(manuf. of, for low-temp.-curing aq. dispersion coatings for plastics and metals)

RN 97972-63-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenylbenzene, ethyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9 CMF C6 H10 O3

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{EtO-C-CH-----} \text{CH}_2 \end{array}$$

CM 3

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 4

CRN 97-88-1 CMF C8 H14 O2

CM

CRN 80-62-6 CMF C5 H8 O2

CM 6

CRN 79-06-1 CMF C3 H5 N O

$$_{||}^{O}$$
 $_{||}^{H_{2}N-C-CH}=CH_{2}$ 

RN 97972-64-0 HCAPLUS

CN2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, ethyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-propenamide (9CI) (CA INDEX NAME)

CM

CRN 868-77-9 CMF C6 H10 O3

CM2

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{EtO-C-CH------} \text{CH}_2 \end{array}$$

CM 3

CRN 100-42-5 C8 H8 CMF

$$H_2C = CH - Ph$$

CM 4

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM5

CRN 80-62-6

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CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 7

CRN 79-06-1 CMF C3 H5 N O

L23 ANSWER 51 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 1985:506406 HCAPLUS

DN 103:106406

TI Aqueous coating composition comprising a dispersion of polymerized unsaturated monomers, a nonionic surfactant and crosslinking agent

IN Rehfuss, John W.; Hazelwood, Louis S.; Price, Martin B.

PA Reliance Universal, Inc., USA

SO U.S., 6 pp. Cont. of U.S. Ser. No. 469,417 abandoned. CODEN: USXXAM

DT Patent

LA English

IC ICM C08L061-28

NCL 524512000

CC 42-7 (Coatings, Inks, and Related Products)
Section cross-reference(s): 38, 55, 56

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE ---------------PΤ US 4524173 Α 19850618 US 1984-633083 19840724 PRAI US 1982-348286 19820212 US 1983-469417 19830224

AB Coating compns., curable by strong acids at low temps., for metals and plastics contain 52-78.5% aq. dispersions of polymers from functional and nonfunctional group-contg. monomers, 1.5-8% nonionic surfactants for stability of the dispersion at pH 1.0-10, and 20-40% substituted amides (optionally alkoxylated or etherified) or their mixts.

with highly alkylated polymeric methoxymethylated substituted amines (optionally alkoxylated or etherified). Thus, a slurry contg. water 36, Bu Carbitol 12, iso-PrOH 6, poly(vinylpyrrolidone) 21, amphoteric sulfonated surfactant 6, polyethylene glycol octylphenyl ether [9036-19-5] emulsifier (d.p. 40) 2, defoamer 4, SiO2 88, TiO2 20, and methoxymethylurea [13824-21-0] 107 g was mixed with 400 g 40% solids copolymer [97972-64-0] emulsion prepd. from acrylamide 26, methacrylic acid 11, styrene 49, Me methacrylate 50, Bu methacrylate 180, hydroxyethyl methacrylate 21, and Et acrylate 37 g in the presence of polyethylene glycol nonylphenyl ether [9016-45-9] emulsifier (ethylene oxide content 6 and 40 mols). This compn. was neutralized with 2 g dimethylethanolamine, mixed with 70% p-toluenesulfonic acid to pH 1.5-2.5, applied to steel, Al, polyester, Lexan polycarbonate, Noryl [52439-05-1], polystyrene [9003-53-6], and ABS polymer [9003-56-9] substrates, primed with a pigmented acrylic polymer emulsion, and baked 30 min at 150.degree.F to give a 1.5-mil topcoating which exhibited Gardner direct impact 80 in.-lb, 4.5% elongation using a 1/8-in. conical mandrel, and 1,1,1-trichloroethane resistance 50 double rubs. acrylic dispersion coating plastic metal; plastic substrate acrylic dispersion coating; polyoxyethylene alkylphenyl emulsifier acrylic

ST acrylic dispersion coating plastic metal; plastic substrate acrylic dispersion coating; polyoxyethylene alkylphenyl emulsifier acrylic coating; methoxymethylurea crosslinker acrylic dispersion coating; steel acrylic dispersion coating; aluminum acrylic dispersion coating; polyester substrate acrylic dispersion coating; polycarbonate substrate acrylic dispersion coating; polyoxyphenylene substrate acrylic dispersion coating; polystyrene substrate acrylic dispersion coating; dispersion coating

IT Polycarbonates

Polyesters, uses and miscellaneous

Polyoxyphenylenes

RL: USES (Uses)

(coatings for, acrylic polymer aq. dispersions contg. nonionic emulsifiers and amide crosslinkers as)

IT Crosslinking agents

(methoxymethylurea and melamine-urea resin, for acrylic polymer aq. dispersion coatings, for plastics and metals)

IT Emulsifying agents

(nonionic, for acrylic polymer aq. dispersion coatings contg. amide crosslinkers, for plastics and metals)

IT Coating materials

(water-thinned, acrylic polymers, contg. nonionic emulsifiers and amide crosslinkers, for plastics and metals)

IT 7429-90-5, uses and miscellaneous 9003-53-6 9003-56-9 52439-05-1 RL: USES (Uses)

(coatings for, acrylic polymer aq. dispersions contg. nonionic emulsifiers and amide crosslinkers as)

IT 13824-21-0

RL: USES (Uses)

(crosslinkers, for acrylic polymer aq. dispersion coatings, for plastics and metals)

IT 9016-45-9 9036-19-5

RL: USES (Uses)

(emulsifiers, for acrylic polymer aq. dispersion coatings contg. amide crosslinkers, for plastics and metals)

IT 97972-63-9P 97972-64-0P

RL: PREP (Preparation)

(manuf. of, for aq. dispersion coatings contg. nonionic emulsifiers and amide crosslinkers, for plastics and metals)

IT 97972-63-9P 97972-64-0P

RL: PREP (Preparation)

(manuf. of, for aq. dispersion coatings contg. nonionic emulsifiers and

amide crosslinkers, for plastics and metals)

RN 97972-63-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenylbenzene, ethyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9 CMF C6 H10 O3

CM 2

CRN 140-88-5 CMF C5 H8 O2

CM 3

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 4

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 5

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ & \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{OMe} \end{array}$$

CRN 79-06-1 CMF C3 H5 N O

RN 97972-64-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, ethyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9 CMF C6 H10 O3

CM 2

CRN 140-88-5 CMF C5 H8 O2

$$\overset{\text{O}}{\parallel} \\ \text{EtO-C-CH-----} \text{CH} \overset{\text{O}}{\longrightarrow} \text{CH}_2$$

CM 3

CRN 100-42-5 CMF C8 H8

H2C=CH-Ph

CM 4

CRN 97-88-1

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CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-} \text{C-} \text{C-} \text{Me} \end{array}$$

CM 5

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-} \text{C--} \text{C--} \text{OMe} \end{array}$$

CM 6

CRN 79-41-4 CMF C4 H6 O2

CM 7

CRN 79-06-1 CMF C3 H5 N O

L23 ANSWER 52 OF 55 HCAPLUS COPYRIGHT 2002 ACS

AN 1982:53954 HCAPLUS

DN 96:53954

TI Graft copolymer, a coating composition comprising it and electrocoating such compositions

IN Hazan, Isidor

PA du Pont de Nemours, E. I., and Co. , USA

SO Eur. Pat. Appl., 40 pp. CODEN: EPXXDW

DT Patent

LA English

IC C08F008-02; C09D003-81; C09D005-40; C25D013-06

CC 42-7 (Coatings, Inks, and Related Products) Section cross-reference(s): 55, 56

FAN.CNT 6

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PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
     ______
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                                           -----
PΙ
     EP 32570
                       A2
                            19810729
                                           EP 1980-108057
                                                           19801219
     EP 32570
                      A3 19811230
         R: AT, BE, DE, FR, GB, IT, NL, SE
     BR 8008248 A
                           19810721
                                           BR 1980-8248
                                                           19801217
     AU 8065606
                      A1
                            19810625
                                           AU 1980-65606
                                                           19801219
     JP 56098237
                      A2 19810807
                                           JP 1980-181824
                                                           19801220
     US 4340523
                      A
                                           US 1980-220957
                            19820720
                                                           19801229
PRAI US 1979-106254
                            19791221
     US 1979-106255
                            19791221
     US 1979-106256
                            19791221
     US 1979-106257
                            19791221
     US 1979-106258
                            19791221
     US 1979-106259
                            19791221
AB
     Compns., which can be cathodically coated at neutral pH on
     metals, have good crosslinking response at 150-75.degree. and contain a
     glycidyl ester-grafted acrylic polyamine copolymer with amine and hydroxy
     functionality, another codispersed polymer, and, optionally, auxiliary
     resins and crosslinkers. Thus, 860 parts of dispersion contg. Cymel 1125
     99.92, lactic acid (I) 85%) 6.59, water 514.26, 440.5:176.20 (wt. ratio)
     DER 661-nonylphenol reaction product 136.70, and
     264.92:137.70:53.70:125.30 (wt. ratio) tert-butylaminoethyl methacrylate
     (II)-Cardura E 10-Et acrylate (III)-hydroxylethyl methacrylate (IV) graft
     copolymer [80516-44-5] 102.53 parts and 105.00 parts
     pigment paste contg. 264.92:53.50:125.30 (wt. ratio) II-III-IV
     copolymer [71957-58-9] (prepd. in the presence of HSCH2CH2OH)
     16.45, EtO(CH2)2OH 4.03, I (85%) 3.03, water 24.74, Mg silicate 20.85, Pb
     silicochromate 10.79, Pb silicate 22.80, and carbon black 2.32 parts are
     mixed with 880.00 parts water to give an electrophoretic primer
     compn. with throwing power 35.5-38 cm at 350-400 V for cold-rolled
     or phosphated steel.
ST
     electrophoretic coating glycidyl ester copolymer; acrylic polyamine
     copolymer electrophoretic coating; epoxy nonphenyl adduct electrophoretic
     coating; steel cathodic electrophoretic coating
IT
    Coating materials
        (electrophoretic, glycidyl-grafted acrylic polyamine copolymer-based)
IT
     12597-71-6, uses and miscellaneous
     RL: USES (Uses)
        (coatings for, electrophoretic, glycidyl ester-grafted acrylic
        polyamine copolymer-based)
IT
     25068-38-6D, reaction products with nonylphenol
                                                      25154-52-3D, reaction
    products with epoxy resins
    RL: TEM (Technical or engineered material use); USES (Uses)
        (coatings, electrophoretic, contg. glycidyl ester-grafted acrylic
        polyamine copolymers)
IT
     71957-58-9
     RL: TEM (Technical or engineered material use); USES (Uses)
        (coatings, electrophoretic, contg. glycidyl ester-grafted polyamine
        copolymers)
ΙT
    80516-43-4
    RL: USES (Uses)
        (graft, coatings, electrophoretic)
    79509-39-0P 80516-42-3P 80516-44-5P
ΙT
    RL: PREP (Preparation)
        (manuf. of, for electrophoretic coating)
ΙT
    79509-39-0P 80516-42-3P 80516-44-5P
    RL: PREP (Preparation)
        (manuf. of, for electrophoretic coating)
```

79509-39-0 HCAPLUS

RN

09/869549

2-Propenoic acid, 2-methyl-, 2-[(1,1-dimethylethyl)amino]ethyl ester, polymer with 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM

CRN 3775-90-4 CMF C10 H19 N O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ \text{t-BuNH-CH}_2\text{--CH}_2\text{--O-C-C-Me} \end{array}$$

2 CM

CRN 868-77-9 CMF C6 H10 O3

RN 80516-42-3 HCAPLUS

tert-Decanoic acid, oxiranylmethyl ester, polymer with CN 2-[(1,1-dimethylethyl)amino]ethyl 2-methyl-2-propenoate and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM1

CRN 71206-09-2 CMF C13 H24 O3 CCI IDS

CM 2

CRN 3775-90-4 CMF C10 H19 N O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ \text{t-BuNH-CH}_2\text{--CH}_2\text{--O-C-C-Me} \end{array}$$

CM 3

CRN 868-77-9 CMF C6 H10 O3

RN 80516-44-5 HCAPLUS

tert-Decanoic acid, oxiranylmethyl ester, polymer with
2-[(1,1-dimethylethyl)amino]ethyl 2-methyl-2-propenoate, ethyl CN 2-propenoate and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

71206-09-2 CRN CMF C13 H24 O3 CCI IDS

CM 2

CRN 3775-90-4 CMF C10 H19 N O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ \text{t-BuNH-CH}_2\text{--CH}_2\text{--O-C-C-Me} \end{array}$$

CM3

CRN 868-77-9 CMF C6 H10 O3

CM

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{Eto-C-CH------} \text{CH}_2 \end{array}$$

```
L23 ANSWER 53 OF 55 HCAPLUS COPYRIGHT 2002 ACS
AN
     1979:493151 HCAPLUS
DN
     91:93151
     Metallic coating of steel plates
ΤI
IN
     Tanaka, Shoichi
PA
     Kansai Paint Co., Ltd., Japan
     Jpn. Kokai Tokkyo Koho, 5 pp.
     CODEN: JKXXAF
DT
     Patent
     Japanese
LA
IC
     C09D005-38
CC
     42-10 (Coatings, Inks, and Related Products)
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                           APPLICATION NO. DATE
                    ---- -----
                                           _____
PI
     JP 54046235
                     A2
                            19790412
                                           JP 1977-112949 19770920
     JP 60034590
                     B4 19850809
     Substrates are coated with compns. contg. melamine-formaldehyde
AΒ
     copolymer (I) [9003-08-1], thermosetting resins, and powd. metal and top
     coated with surfactant-contg. thermosetting resin compns. having
     a surface tension at least 0.5 dyne/cm lower than that of the previous
     coatings to prevent crack formation during drying. Thus, a primed steel
     plate was coated with a compn. (surface tension 27.6 dyne/cm)
     contg. 50% solids 2:20:20:13:15:30 acrylic acid-Bu methacrylate-Et
     acrylate-2-ethylhexyl acrylate-2-hydroxyethyl methacrylate-Me methacrylate
     copolymer [71166-37-5] soln. 160, 50% solids I soln. 40, powd.
     Al 12, yellow pigment 0.01, carbon black 0.005, PhMe 40,
     petroleum solvent 30, BuOAc 20, and BuOH 10 parts, left 3 min, and top
     coated with a compn. (surface tension 26.5 dyne/cm) contg. 50%
     solids 2:30:23:15:30 acrylic acid-Bu methacrylate-2-ethylhexyl
     methacrylate-2-hydroxyethyl methacrylate-styrene copolymer
     55774-94-2] soln. 140, 60% solids I soln. 50, petroleum solvent
     90, BuOH 10, and fluorine-contg. surfactant 0.01 part. When the
     fluorine-contg. surfactant was omitted, a similar top coating
     compn. had surface tension 28.5 dyne/cm and formed cracks during
     drying.
ST
    metallic coating compn; acrylic polymer coating steel; melamine
    resin coating steel; surface tension coating compn; crack
    prevention coating steel; surfactant top coating steel
TT
    Coating materials
        (acrylic polymer-melamine resins, metallic, prevention of crack
        formation during drying of, on steel)
ΙT
    Surfactants
        (fluorine-contg., acrylic polymer-melamine resin coatings contg., for
        prevention of crack formation during drying on steel)
TΨ
    9003-08-1P
    RL: TEM (Technical or engineered material use); PREP (Preparation); USES
        (coatings, metallic, contg. acrylic polymers, crack prevention during
        drying of, on steel)
IT
    55774-94-2P 63747-55-7P 71166-37-5P
    71216-97-2P
    RL: TEM (Technical or engineered material use); PREP (Preparation)
    ; USES (Uses)
        (coatings, metallic, contg. melamine-formaldehyde polymers, crack
       prevention during drying of, on steel)
```

55774-94-2P 63747-55-7P 71166-37-5P

IT

71216-97-2P

RL: TEM (Technical or engineered material use); PREP (Preparation) ; USES (Uses)

(coatings, metallic, contg. melamine-formaldehyde polymers, crack prevention during drying of, on steel)

RN 55774-94-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenylbenzene, 2-ethylhexyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM

CRN 868-77-9 CMF C6 H10 O3

CM 2

CRN 688-84-6 CMF C12 H22 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \\ \mid \\ \text{Et} - \text{CH} - \text{Bu-n} \end{array}$$

CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM4

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 5

CRN 79-10-7

RN 63747-55-7 HCAPLUS

2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenylbenzene, 2-ethylhexyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME) CN

CM 1

CRN 868-77-9 CMF C6 H10 O3

2 CM

103-11-7 CRN CMF C11 H20 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_2-\text{O-C-CH} = \text{CH}_2 \\ \parallel \\ \text{Et-CH-Bu-n} \end{array}$$

CM 3

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 4

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CRN 80-62-6 CMF C5 H8 O2

CM 6

79-10-7 CRN CMF C3 H4 O2

RN 71166-37-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-ethylhexyl 2-propenoate, ethyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9 CMF C6 H10 O3

CM 2

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{EtO-C-CH-----} \text{CH}_2 \end{array}$$

3 CM

CRN 103-11-7 C11 H20 O2 CMF

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_2-\text{O-C-CH} \Longrightarrow \text{CH}_2 \\ \parallel \\ \text{Et-CH-Bu-n} \end{array}$$

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{ccc} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

5 CM

CRN 80-62-6 CMF C5 H8 O2

CM 6

CRN 79-10-7 CMF C3 H4 O2

$$\begin{matrix} \text{O} \\ \parallel \\ \text{HO-C-CH} = \text{CH}_2 \end{matrix}$$

RN 71216-97-2 HCAPLUS

2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate, 2-methylpropyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9 CMF C6 H10 O3

$$\begin{array}{ccc} ^{\text{H}_2\text{C}} & \text{O} \\ \parallel & \parallel \\ ^{\text{Me-C-C-O-CH}_2-\text{CH}_2-\text{OH}} \end{array}$$

CRN 688-84-6 CMF C12 H22 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{CH}_2-\text{O-C-C-Me} \\ \parallel & \parallel \\ \text{Et-CH-Bu-n} \end{array}$$

CM 3

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 4

CRN 97-86-9 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{i-BuO-C-C-Me} \end{array}$$

CM 5

CRN 79-10-7 CMF C3 H4 O2

L23 ANSWER 54 OF 55 HCAPLUS COPYRIGHT 2002 ACS

ΑN 1978:63378 HCAPLUS

DN 88:63378

ΤI Pigment dispersions for thermosetting coatings

Takahashi, Mitsuru; Matsumoto, Hideo IN

PΑ Nippon Paint Co., Ltd., Japan

SO Japan. Kokai, 11 pp.

CODEN: JKXXAF

DTPatent

LA Japanese

IC C09D003-727

42-10 (Coatings, Inks, and Related Products) FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. \_\_\_\_ -----PΙ JP 52091034 A2 19770801 JP 1976-8060 19760127 JP 59017721 B4 19840423

Crelan L/Ue 6107-2-hydroxyethyl methacrylate-iso-Bu methacrylate-AΒ methacrylic acid-Me methacrylate-styrene copolymer (I) 65217-17-6] or a similar copolymer was prepd. in the presence of a suspension stabilizer such as a cationic starch deriv. and gelatin and used to prep. pigment dispersions. Thus, 30 parts mixt. prepd. from Me methacrylate 33, styrene 16, iso-Bu methacrylate 16, and 2-hydroxyethyl methacrylate 25 parts was mixed with methacrylic acid 0.5, Crelan L/Ue 6107 (II) (a blocked isocyanate resin) 15, and a cyanine blue pigment 5 parts, milled, mixed (33 parts) with dibutyltin dilaurate 0.5, I 17, tert-C12H25SH 2.2, and 2,2'-azobis-2,4dimethylvaleronitrile 2 parts, stirred, mixed with 400 parts 4% aq. gelatin, polymd. at 70.degree. for 5 h, adjusted to H ion concn. 8, mixed with 160 mg protein decompg. enzyme, heated at 50.degree. for 2 h, filtered to give a pigment compn., sprayed on steel, and baked at 160.degree. for 20 min to form a I coating.

suspension stabilizer gelatin; cationic starch suspension stabilizer ST ΙT Coating materials

(blocked isocyanates-hydroxyethyl methacrylate-iso-Bu methacrylate-methacrylic acid-Me methacrylate-styrene copolymer)

IT Dispersing agents

(cationic starch derivs., for polymn. of carboxylic acids with acrylic esters and glycols)

ΙT Gelatins, uses and miscellaneous

RL: USES (Uses)

(suspension stabilizers, for polymn. of blocked isocyanates with hydroxyethyl methacrylate and iso-Bu methacrylate and methacrylic acid and Me methacrylate and styrene)

ΙT Polymerization

(suspension, of blocked isocyanates with hydroxyethyl methacrylate and iso-Bu methacrylate and methacrylic acid and Me methacrylate and styrene, stabilizers for)

IT 65217-09-6P **65217-17-6P 65217-18-7P** 65366-18-9P

RL: PREP (Preparation)

(manuf. of, suspension stabilizers for)

IT 9005-25-8D, cationic, derivs. 9049-76-7

RL: USES (Uses)

(suspension stabilizers, for polymn. of carboxylic acids with acrylic esters and glycols)

IT 65217-17-6P 65217-18-7P

RL: PREP (Preparation)

(manuf. of, suspension stabilizers for)

RN 65217-17-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with Crelan L/Ue 6107, ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-methylpropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 57486-27-8 CMF Unspecified CCI PMS, MAN

<sup>\*\*\*</sup> STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CRN 868-77-9 CMF C6 H10 O3

CM 3

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM

CRN 97-86-9 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{i-BuO-C-C-Me} \end{array}$$

CM 5

CRN 80-62-6 CMF C5 H8 O2

CM 6

CRN 79-41-4 CMF C4 H6 O2

RN 65217-18-7 HCAPLUS CN 1,3-Benzenedicarboxylic acid, polymer with butyl 2-methyl-2-propenoate,

2,2-dimethyl-1,3-propanediol, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, N,N,N',N',N'',hexakis(methoxymethyl)-1,3,5-triazine-2,4,6-triamine, hexanedioic acid, 2-hydroxyethyl 2-methyl-2-propenoate, mercaptoacetic acid and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 3089-11-0 CMF C15 H30 N6 O6

$$\begin{array}{c|c} \text{MeO-CH}_2 \\ \text{N-CH}_2\text{-OMe} \\ \\ \text{N-CH}_2\text{-OMe} \\ \\ \text{MeO-CH}_2\text{-N-N-CH}_2\text{-OMe} \\ \\ \text{MeO-CH}_2\text{-CH}_2\text{-OMe} \\ \end{array}$$

CM 2

CRN 868-77-9 CMF C6 H10 O3

CM 3

CRN 126-30-7 CMF C5 H12 O2

CM

CRN 124-04-9 CMF C6 H10 O4

 $HO_2C-(CH_2)_4-CO_2H$ 

CRN 121-91-5 CMF C8 H6 O4

CM 6

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 7

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 8

CRN 80-62-6 CMF C5 H8 O2

CM 9

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

```
CM 10
```

SHOSHO

CRN 68-11-1 CMF C2 H4 O2 S

 $\begin{matrix} \text{O} \\ || \\ \text{HO-C-CH}_2\text{-SH} \end{matrix}$ 

```
ANSWER 55 OF 55 HCAPLUS COPYRIGHT 2002 ACS
AN
     1976:579137 HCAPLUS
DN
     85:179137
ΤI
     Aqueous coating composition
IN
     Marx, Matthias; Diefenbach, Horst
     BASF A.-G., Ger.
PA
     Ger. Offen., 14 pp.
SO
     CODEN: GWXXBX
DT
     Patent
LA
     German
IC
     C09D003-80
     42-7 (Coatings, Inks, and Related Products)
FAN.CNT 2
```

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2507884 DE 2507884	A1 B2	19760902 19810205	DE 1975-2507884	19750224
	NL 7601649 GB 1530022	A A	19760826 19781025	NL 1976-1649	19760218
•	AT 349586	В	19790410	GB 1976-6985 AT 1976-1266	19760223 19760223
	FR 2301575 FR 2301575	A1 B1	19760917 19800509	FR 1976-5020	19760224
PRAI	DE 1975-2507842		19750224		
	DE 1975-2507884 GB 1976-6984		19750224 19760223		

The title compns., free of dispersants, essentially free of org. solvents, and contg. 20-80% solids, contain NH3- or amine-neutralized CO2H-contg. polymers, pigments or fillers, and, optionally, crosslinking agents. Thus, a mixt. of 50% BuOH soln. of 6:20:14:50:55 acrylic acid-N-(butoxymethyl)methacrylamide-ethyl acrylate-hydroxypropyl acrylate-methyl methacrylate copolymer [60766-06-5] 1000, Me2NCH2CH2OH 10, and TiO2 500 parts was ball-milled, and BuOH was distd. azeotropically at 94-8.degree. to give a 40% solids dispersion, viscosity 230 cP. Spraying this compn. on degreased, unprimed, deep-drawing sheet and baking 30 min at 150.degree. gives a highly glossy, hard, elastic coating.

ST acrylic coating aq dispersion; methacrylate copolymer coating; butoxymethylmethacrylamide copolymer coating; hydroxypropyl acrylate copolymer coating

IT Coating materials

(acrylic, aq. dispersions of, manuf of)

IT 52522-02-8P 60766-06-5P

RL: TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coatings, aq. dispersions, manuf. of)

IT 60766-06-5P

RL: TEM (Technical or engineered material use); PREP (Preparation)

(coatings, aq. dispersions, manuf. of)

RN 60766-06-5 HCAPLUS CN

2-Propenoic acid, 2-methyl-, methyl ester, polymer with N-(butoxymethyl)-2-methyl-2-propenamide, ethyl 2-propenoate, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI) (CA INDEX

CM 1

CRN 5153-77-5 CMF C9 H17 N O2

$$\begin{array}{c} \text{O } \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-CH}_2\text{-NH-C-C-Me} \end{array}$$

CM 2

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{EtO-C-CH-----} \text{CH}_2 \end{array}$$

CM 3

CRN 80-62-6 CMF C5 H8 O2

CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5

25584-83-2 CRN

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

SHOSHO 09/869549 Page

Page 328 11/08/2002

CMF C6 H10 O3 CCI IDS

CM 6

CRN 79-10-7 CMF C3 H4 O2

CM 7

CRN 57-55-6 CMF C3 H8 O2